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RESTORATION AND PRESERVATION OF HEALTH,
ON
HYGIENIC PRINCIPLES.

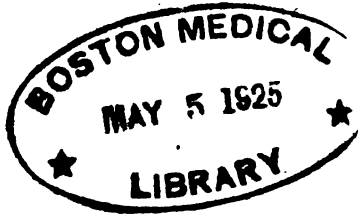
NATURE'S REMEDIAL AGENCIES
ARE
*LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET, BATHING
SLEEP, EXERCISE AND REST.*

Amplly Illustrated.

VOLUME IV.
JANUARY TO JUNE, 1874.

New York:
SAMUEL R. WELLS, PUBLISHER, 389 BROADWAY.
1874.

We can not stretch out an arm or a foot, or walk, or run, or leap, without freshening the life-currents of the system; sending new flashes of electric warmth along the nerves and muscles; and scattering a cloud of those blue and black devils that buzz around the ears of poor sedentary students, stayers at home, and women imprisoned in nurseries and amid their household cares.—*North American Review*.



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Cultivate the physical exclusively, and you have an athlete or a savage; the moral only, and you have an enthusiast or a maniac; the intellectual only, and you have a diseased oddity—it may be a monster. It is only by training all together—physical, intellectual, social, and spiritual—that the complete man can be formed.—ILLUSTRATED PHRENOLOGICAL JOURNAL.

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NOTE.—THE SCIENCE OF HEALTH was commenced in July, 1872. There are Two Volumes published each year. The first Volume, consisting of the Nos. from July to December, 1872, are bound in one Vol., handsome cloth, price \$1.50. After this the numbers are bound in yearly Vols., price \$3.00. Terms, in monthly numbers, \$1 a Volume, or \$2 a year. Price for Vols. 1, 2, and 3, nicely bound, prepaid by post, is \$4.50.



NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

HOW TO GET WELL AND HOW TO KEEP WELL.

BY ERNEST WELLMAN, M.D.

Science in Medicine.—All truly successful practice is established upon scientific principles. One may, indeed, be, as thousands are, an empiric, and yet be a comparatively successful practitioner of the healing art. I say comparatively successful, because, to compete successfully with the practice now in vogue requires exceedingly little skill; and hence the greatest ignorance of general principles is entirely compatible with the results usually attained. For this reason, very ignorant men have established systems of medication that have proved their superiority in practice over those in vogue which were sustained by the more learned empirics. As an example of this, we may quote the success of Thomsonianism over Allopathy. Both systems were and are entirely empirical in practice, but comparative success perched on the standard of the unlearned, while disaster follows the practice of the learned.

Experimental practice always pre-supposes error and disaster. No man can learn, independently of general principles, except through frequent failures. It is the sad and disastrous experiences of life that teach him wisdom quite as much as it is his success.

Medical practice, up to the time of Priessnitz, had been one long series of disastrous practice. Theory after theory, system after system, practice after prac-

tice, followed each other in rapid succession, and each but lived to prove itself as false as its predecessors. Hence, it did not require an immense amount of either learning or skill on the part of Priessnitz to be quite as successful, and a hundred fold more so, than any who had preceded him.

Priessnitz was a student of nature, and a man of strong common sense, practical rather than theoretical, with keen powers of observation, and the tact and ability to turn the results of his observation and experience to practical account. And he had this additional qualification: *he had not been educated in a medical school.* It may seem paradoxical to some that his comparative ignorance of medical subjects was an advantage. The fact, now well recognized, that education into truth is the greatest of all forces towards success and happiness, is the proof that education into error is the great cause of failure and disaster. Medical education is very largely education into error, and hence Priessnitz was truly fortunate in not being thus educated.

Notwithstanding the great success that followed the practice of Priessnitz, he was not less an empiric than his predecessors or cotemporaries; but he had fortunately hit upon a great truth, while they opposed it, even by the authority of law. Priessnitz's success was marvellous,

simply because of his opponents' want of success. But he soon became famous. Hundreds flocked to his bathing establishments to receive the benefits of his treatment, and hundreds more began to experiment in various parts of the civilized world. Particularly in America, where the spirit of investigation has always been rampant, were his theories studied and his practices followed with varied results. It may be a question as to whether hundreds or thousands, or tens of thousands, found a "watery grave" at the hands of those incautious experimenters; but the fact is not denied. Saul has slain his thousands, but then, David slew his ten thousands—David's little stone in the doctor's saddlebags has been so much more destructive than Saul's sword, that the comparative success of water-cures is undeniable. For thirty years they have flourished, and have done what they have done toward relieving human suffering, and promoting knowledge by experiments in new directions.

Water-cure practice has always been empirical in the same sense that drug-medical practice has. The "*Water-cure Journal*" was the organ through which the results of the practice of scores of physicians were duly chronicled; but the principles of the science of medicine were scarcely better expounded than in drug-medical journals. Light was nevertheless breaking. A hint here, a conjecture there, and a theory elsewhere, furnished food for the philosophic, and new experiments were inaugurated. Sylvester Graham, with "*The Science of Human Life*," made a great step in advance; and, though some of his theories are not what later developments would approve, he nevertheless made a valuable attempt at systematization.

And Phrenology has done its work. The science of mind opened up the way to rational thought on the subject of man. It has shown that thought, feeling, and action depend upon organization; and hence, that the character and quality of the thought, feeling, and action depend upon the *character and conditions* of the

organization. Phrenologists have been pioneers in the great work of educating the people concerning themselves, so that now radical thought is tolerated, and fundamental truth can be borne.

Then came hygienic institutions, with glimmerings of the truth as it is, causing water-cure to surrender to more rational methods, and to-day

THE SCIENCE OF HYGIEO-THERAPY

does exist. The hygienic system, as expounded at its college, is no longer empirical, but it is scientific. That is to say, it is founded upon the immutable laws of nature. Its fundamental principles are as firmly established as the principles of any other science are. They are plain, easy of comprehension, and logically proven. It is nevertheless true that no really systematic exposition of those principles have as yet been put before the people. They are taught at the college every winter by its able founder (able, because he is armed with the truth); but outside of the college and its graduates, I doubt if they are at all comprehended.

In declaring that hygienic medication is a scientific system, we do not, therefore, commit ourselves to all its opinions or practices. We know that *fundamentally* it is right, and this is sufficient to enlist our heartiest sympathies, and command our sincere respect. It must succeed, because, having a firm foundation, the superstructure will gradually be reared, and a noble edifice, that will cheer the hearts of all lovers of truth, will stand as the enduring monument of its pioneers. The principles being everlastingly true, the details will ultimately correspond, when it cannot fail to enlist the admiration and co-operation of all honest men.

If one would realize the importance of comprehending and adhering to the great principles that underlie practice, let him attempt to construct or manage a steam-engine, or a sewing-machine, while as yet he is ignorant of mechanical principles. The originators of these machines made many visionary experiments, and met

with many failures; but their failures and absurdities never compared with those of medical practice. To attempt to operate a locomotive, while one is unacquainted with the power of steam, would be rash; but to treat sick people, while ignorant of the nature and causes of disease, as medical men acknowledge they are, is rashness, even to insanity. Experience, except when interpreted in the light of sound principles, has always proved itself an idle tale, and utterly untrustworthy. In its name every conceivable falsehood has been propagated, and under its guidance almost every woe that afflicts humanity is permitted. Principles, on the other hand, are the keys of universal

knowledge, and consequently, of universal power.

Experimental practice holds the same relations to practice founded on principle that belief does to knowledge, and that speculation does to science. It is well to believe the truth, but it is infinitely better to comprehend the truth. The prevailing medical practice is acknowledged by all respectable physicians to be simply experimental practice, and is, therefore, utterly indefensible in the light of science, while hygieo-therapy is founded on scientific principles that are demonstrably true, and its practice corresponds. [This subject will be continued in future numbers.]

DO WE MURDER OUR DAUGHTERS?

BY ELIZABETH DUDLEY.

THE other day a young lady called on me. This is an unusual occurrence; girls often rush into my secluded sanctum and probe me with questions pertaining to the vast and subtle mysteries which their minds are eager to penetrate. Young women sometimes come, sad-eyed and earnest, seeking help or sober advice concerning the realities of life, and the possibility of existing without defrauding either yourself or your neighbor; but I seldom receive a voluntary call from that peculiar evolverment of my sex which is commonly designated "a young lady."

I am sure that this was a young lady, because she wore a silk dress in one of the newest colors, trimmed with perpendicular pipings and quillings on the front breadth, and seven flounces on the back breadths; also with embroidery, and velvet of the same shade, and fringe and lace, and a redingote of the same, cut in the very latest style. All her other attire was in keeping, but I have not space to describe it. You can see her for yourself, riding on the avenue every time she gets a new suit.

At first I was not quite sure that there was any vestige of a woman inside all those wonderful draperies; but the scolding she administered soon convinced me.

I did not listen at first, having become so used to scoldings that now they simply bore me; but presently her words dissipated my train of thought, and I heard the following:

"I did think that you took an interest in girls, that you wanted us to succeed and do well in life. I would never have believed that you would turn against us and take sides with our persecutors. Whose fault is it, I would like to know, that we are as we are? Why, the fault of our parents and of society!

"Can I help it that I was born a puny, nervous, little wretch, with not half my share of the breath of life in me? Why did my parents bring me into existence before they knew that they were fit for the responsibility? A slender, consumptive boy, and a nervous, melancholy girl—what right had they to marry? And when they saw me, why did not they drown me at once? That would have been more merciful! Since they would keep me alive, why did not they give me fresh air, and my natural food, and study the plain, simple laws of physiology, that they might apply them to my case, and make my enforced existence a pleasure?

"And when I feebly fought, and feebly struggled against such fearful odds, and

conquered by a hair's breadth, so that not only I did not die, but my mind began to awaken—why did they adopt such an imbecile mode of training? When the outside world forced itself, object by object, upon my notice, and I ran to them with eager questions, they replied: 'You are too young to understand, you must not ask questions; when you are older you will know.' But I could not wait to be older. I went to my nurse, and she told me a pack of nonsense, which I soon found to be lies, but have never forgotten. Why did not my parents tell at least a part of the truth, and satisfy me for the time? A child cannot read a whole book at a sitting, but it can learn the letter A, the key to the whole.

"Then, when my questions became too many and too searching for them, they sent me to school. I was glad to go, thinking that now I should have a teacher—now I might learn. But when I asked questions there, the teacher told me, 'Hush! Talking is not allowed here; you must study.' Then, 'to discipline my mind,' they offered antediluvian fossils of incomprehensible grammar, and brain-addling mathematics, and ghostly histories. And when I craved some physiological knowledge of myself and the laws that govern life, they made me believe that such studies were dangerous and improper for a girl. I sought to learn something of the wonderful world about me, but was assured that chemistry, and geology, and astronomy, and biology are trifling studies, weakening the mental powers, and, besides that, lead to materialism, a very dangerous precipice for a girl to stand upon.

"So they kept me at the piano four hours a day, until now I hate the sight of one, and never play unless obliged; and they made me learn some French, and ever so many other languages. I never speak one of them now, for foreigners cannot understand me, and I am sure no one else can! And they taught me to dance, and to enter and leave a room, and to entertain visitors with 'society talk,' and to copy engravings in-

differently well (*that was said to be drawing*), and the art of using cosmetics and arranging my hair, and dressing fashionably, and walking on my toes, and not stepping on another lady's train, and how to 'cut' unfashionable acquaintances! I was not allowed to walk out for fear of making my feet large, nor to go out unless veiled, even in a carriage, and was kept indoors most of the time, that I might learn to be a little lady, and not permitted to eat much, lest I should grow plump and unrefined.

"I believe they did try to teach me spelling and reading, but I know very little of either; and I can write a beautiful hand, for *that* is really a necessary accomplishment. We had lectures on Logic, and Metaphysics, and Rhetoric; and they made us write compositions (but another girl wrote mine for me—she was poor, and I paid her for them; and she wrote her own in the morning, when she was fresh, and mine in the evening, when she was tired; so we never got found out). Well, they taught me so many things at school that I had a headache all the time, and never could remember anything from one lesson to another; so now I have quite forgotten all, and I'm sure it would be of no use if I could remember.

"Then, when I had finished and gone home, Ma said I should have a good time, and take a long rest after so much hard work. So now I never open any book but a novel: and, indeed, I never get time to. For in the morning I am tired, and have a headache, and I try to sleep it off; and that makes breakfast come so late, that by the time Ma and I get dressed and out for a ride, we can only do a little shopping or make a few calls, and then we must hurry home again to dine with Pa. So I never get time to walk, and I am sure it is not my fault; and I cannot walk a quarter of a mile if I try, for I have never been used to it, and I get all tired out in five minutes.

"In the evenings I always enjoy myself, for I go to the theatre or opera with Pa and Ma, or one of my beaux, or else two or three young gentlemen call on us, and

tell us the latest society gossip. *They* never find any fault with me; they think me very pretty, and they laugh at my nonsense just as if it were real wit, and they never correct any of my blunders (though I'm sure I often make them), and they never bore me with good advice about studying for the improvement of my mind.

"Aunt Patty does! Oh, how she teases me! I should be happy if it wasn't for her; for now I am so used to having a headache every day that I don't know how I would feel without it; and Ma lets me do just as I please, and enjoy myself in my own way. But Aunt Patty thinks it her bounden duty to keep watch over her brother's orphan child (you know my own father died of consumption when I was little, and Pa is my step-father); and I guess I plague Auntie about as much as she does me.

"For you must know that Aunt Patty is an out-and-out strong-minded woman, and she spends all her time talking to other people about going to work, and supporting themselves by their own exertions; and she is especially eager to set all the girls at work at something. She says I ought to study, since I have plenty of money to live on, and get to be a very learned woman, and assist in the improvement of my sex. Then she says every girl, even those just like me, ought to live away from home three or four years, just to know what the world is like, and try to find some sphere of usefulness for herself.

"Ah! I am afraid my greatest usefulness will be in calling out the Christian charity of other people towards my weaknesses of mind and body! But if I hint this to Aunt Patty, she goes off in a tirade against girls, and says they are all just like me—and that we are all good for nothing; and the worst of it is, we all marry if we can, and in a few years die, leaving some little children and a young widowed husband; and soon the country will be depopulated.

"Now, this is not fair! Aunt Patty is very one-sided in her judgment. You will find a few girls like me in cities and

country villages, but only a few. Wherever I go in summer journeyings, I see nice, industrious girls; whether I travel North, South, East, or West—and we go wherever other people go—I find so many bright, pretty girls hard at work—most of them too hard at it for their own health or improvement!

"I don't see that the mere fact of earning a living makes girls any better, or that their health is improved by it. Look at those poor girls in shops—how pale, and tired, and half-sick they often look! And sometimes they are as nervous as ever I am; and once I saw a shop-girl faint dead away behind the counter, and the girl who was waiting on me said that the poor creature had been getting weaker every day since she began the business. So you see it's not hard work that makes girls healthy and strong.

"As for me, I am just as I am! I might be much worse, and I would have been far better if my parents and the customs of society had not gone against nature from the moment I drew breath, and before. My parents are rich and can afford to 'kill me with kindness;' yes, that is what ails me: instead of having been drowned at birth, like the happy little Chinese girl, I must be, all my brief life, murdered by inches!"

In conclusion, the young lady cast a reproachful look at me from her large, bright eyes, and with a hysterical sob—as of one who regretted not having been permitted to enjoy the fullness of life—grandly swept her heavy train from my sanctum, and departed.

While I, sighing, sat mournful—writhing under the terrible question—

Do we murder our daughters?

HOW TO SLEEP.—A correspondent writes us his method of inducing sleep as follows: "When you lie down at night, close your lips and draw the breath through the nostrils hard enough to make an audible sound, then listen closely, and if the mind is in a strain upon any subject, this will serve to draw it off. Almost any one will go to sleep in a few moments by following this method and in the morning will rise feeling a great deal more refreshed than if they had gone to sleep with the mind in a strained condition."

DISEASE AND ITS TREATMENT.—No. 11.

BY ROBERT WALTER, M.D.

The Modus Operandi of Medicines.

THE reader who has attentively perused the preceding articles of this series, can now readily perceive why it is that the ideas of medical men regarding disease are so vague and indefinite. He will understand how it is that disputes and disagreements have rent the profession into so many opposing schools, with mystery and confusion as the necessary accompaniments of each. He will perceive, too, ample justification for the statement that each succeeding generation repudiates the medical theories and practices of their predecessors, and spends time and talent without stint to *invent* and promulgate new theories and new practices, which live only to suffer the fate of their predecessors. He will also have discovered how easy it is to make the *same fact* apparently sustain opposite theories—of making it the basis of falsehood or of truth, the difference depending entirely on the way one looks at it. The great difference, indeed, between a true theory and a false theory is, that one is not only apparently sustained by a few facts, but by every fact in the universe; so that the more facts we become acquainted with, the more certain we are of the truth of our theory; while, in the other case, the more facts and the more closely they are examined, the more doubt we have, because of the disorder and confusion in the system, and disaster in its practice.

But, as in practical life, so in theories, the first falsehood surely leads to many others. Wherever one huge sham is reared into mysterious greatness, a dozen others are invented as so many guarantees of its worth and stability. Following closely the false notions of disease, we have equally false teachings regarding the *modus operandi of medicines*, which have led us into the most absurd contradictions of practice, and developed the most disastrous results. Rum has been clothed with all the mysterious virtues of an *elixir vita*, and though it has

sunk millions into degradation and poverty, it is still regarded by medical men as the chief supporter of life in urgent cases. And the miserable victim of brandy or beer reasons logically and conclusively, that if it gives strength to the weak, it will also make the strong, stronger; and, so he indulges his appetite, and justifies himself in the example and precept of one of the most learned and powerful professions in the world. He assumes not to be wiser than his superiors, but accepts the results of their experience; questions the veracity and integrity of the temperance men, and finally fills a drunkard's grave.

Medical science, so-called, declares that poisons of all sorts and kinds, when introduced into the human system in proper quantities and at proper times, are extremely beneficial, even to the saving of life; and behold! millions, not questioning the truth of the idea, but assuming to be their own judges of time and quantity, become habitual victims of the vilest and most injurious practices.

The medical man administers the sedative or narcotic because experience has shown the propriety of his doing so, and lo! ten million tobacco-smokers follow the example, the only difference being that the physician often trusts another's experience, while the habitual tobacco-user trusts his own. The majority of tobacco-users are just as certain, and reasonably so, that tobacco does them good, as the physician is that his narcotic does his patient good. The dram-drinker knows that his indulgences give him strength, and are necessary to his health, in the same way that the physician knows that brandy "supports the vitality" of a fever patient. Each has the evidence of his own senses to sustain his conclusions, and each is just as reliable as the other. They both are wrong.

The physician gives arsenic to tone up the system, improve digestion, and so add to the vigor of both body and mind; the deluded young belle uses it to give

her sprightliness and vivacity, improve her complexion, and make her altogether beautiful. The wisdom of this practice is measured only by the wisdom of that.

All the varied uses of medicines, or of any other poisons, whether administered by the physician, or taken by the habitual debauchee, result from the same mistaken notion of their action on the living system. The whole thing is a fallacy. Medicines do not act on the living system in any such way as medical men teach. They have mistaken one of the causes of the action for the action itself, and in doing so they have left out of account the real actor—the human system. They have reversed nature's order of things, and given us the very opposite of the truth. They have put the cart before the horse. They have made medicines the actors and living tissue the acted upon, medicines the subject and life the object; the former more valuable than life itself, because life is subordinate to them. The truth is, medicines are tangible, lifeless, inert substances, incapable of action, except chemically on re-agents (which living tissue is not), or mechanically as obstructions. The dead matter does not act upon the living system, but the living system acts upon the dead matter. Medicines are poisons and causes of disease—are obstructions which modify or destroy action, but are never healing agents or forces.

But some one will claim that it is unimportant which *acts*, the medicine or the vital organ, as long as the effect is produced. To this we demur. It is important that we have clear ideas of the exact relations that medicines hold to the living system. We know that purging generally follows the employment of a cathartic, and vomiting, an emetic; but, just why they do so may decide us either for or against their employment. And it is because this is not understood that we have learned men telling us that whiskey is good as a medicine, and bad as a beverage; that arsenic is destructive to a well man, but curative to a sick one; that opium ruins thousands and saves millions, etc. We make the affirmation

that medicines do not act medicinally upon the living system at all; and, in doing so, we oppose the supposed wisdom of ages. Medical men have never heretofore doubted the action of medicines. They are in the daily habit of seeing them act, as they suppose. They know that strychnine tones up the muscular system, steadies the nerves, etc., just as well as they know that the sun rises and sets every day. Aye, but here is the difficulty. The sun doesn't rise. Appearances are deceptive. Gallileo was a fool for questioning the wisdom of all time; but, strange to say, Gallileo was right.

The adherence of men to preconceive opinions, right or wrong, is well illustrated by the traveler who found himself once upon a time traveling at midnight upon a somewhat unfamiliar road. He was aware that the telegraph-wire and posts, if he followed their direction, would carry him safely to his journey's end; but, coming to a cross-road, the wire was hid from view by the shadow of a forest. He knew, as he supposed, that he ought not to turn to the right, and so he must go straight ahead, or turn to the left. So straight ahead he went, but found no telegraph-wires in that direction. He then returned and took the left hand road, but equally his guide was absent there. He returned and tried the road he came on, and the posts and wires were soon in view, but that could not be the road, for he had come thus far on it. Then he tried the roads again, all the while refusing to turn to the *right*, because he *knew that* could not be the right way. After wearying himself trying every way a number of times, he at last consented to take the right hand road that he had heretofore refused to follow, because it was the wrong one; when lo! the telegraph-wires and posts soon appeared in sight, and he safely reached his journey's end.

Medical men have tried every imaginable way to explain the action of medicines on the living system, except the right way, and they are to-day in midnight darkness on the subject. Says Prof. E. H. Davis, M.D., of the New York

Medical College: "The *modus operandi* of medicines is still a very obscure subject. We know that they operate, but exactly *how* they operate is entirely unknown."

This is absurd. Every truth is explainable, and we never can know it *to be a truth* until we can explain it. Medical men *believe* that medicines operate, but they do not *know* it. They assume the very point they ought to prove. Their argument is very much like the old woman's argument: "We know they operate because we know it." This is probably the best argument that can be given to prove what does not exist.

The doctor gives his patient a dose of ipecac, and forthwith both the poison and the other contents of the stomach are ejected with great violence. We are told that the ipecac acted on the stomach; but, positively, we do believe that the stomach acted quite forcibly on the ipecac. It was a poison that could not be tolerated in the vital domain, and hence the muscles of stomach and abdomen exercised themselves in violent and powerful efforts to get rid of the intruder. This was not the action of the emetic, but evidently of the vital instincts. A man swallows a purgative medicine, and soon he has violent, it may be, dejections from the bowels. If it were the medicine that was operating, the patient would have no sensation, whatever. It would travel along its track unnoticed, and find its exit without any effort of the bowels; but the facts are, that the bowels put forth unwonted efforts to expel the intruder. The straining is intense oftentimes; but it not unfrequently happens that the bowels wear themselves out, as it were, in these efforts, and in cases where purgatives have been frequently used, finally cease their actions almost entirely. Every physician knows that the ultimate effect of these purgatives is severe constipation, rather than extreme action.

If medicines act on the living system, then no man need suffer or die for want of action of the vital organs. While purgatives are to be had in limitless quan-

ties, is a man not a fool to suffer from constipation? Why any torpid livers in the land, while calomel is abundant! Why! Oh, why! should dyspepsia increase with doctors and drugs? and why, as a people, do we grow weaker in ratio to the strength-giving materials that we consume? Where is the use of having fevers, and bilious attacks, and debility, and nervousness, and pain, while arsenic, quinine, Hostetter's Bitters, H. H. H., and R. R. R. are sold in every hamlet, and advertised on every public road?

The facts of life everywhere give the lie to the pretensions of both regulars and quacks. The barefaced impudence of the one is only equaled by the contented ignorance and well-paying error of the other; while the unprofessional many are duped and swindled to the loss of money not merely, but to the destruction of all that makes life desirable. The great Dr. Frank told a greater truth than he imagined when he declared that, "Thousands are annually slaughtered in the quiet, sick room."

DEATH FROM SMOKING.—The New York correspondent of the *Buffalo Commercial Advertiser* writes: "A case in my own intimate acquaintance has this very week appalled a large circle of friends in this city. The victim was exactly of my own years and a companion from early boyhood. For thirty years, at least, he has been a daily smoker of the choicest cigars, but in all his other habits temperate and regular, and of excellent constitution—one who, of all men, would have laughed at the suggestion that tobacco was killing him. A week ago last Sunday night, he was stricken with the progressive paralysis, characteristic of nicotine, and on Sunday night he died. His death was most pitiful. First, sight was lost, then speech, then motion of the neck, then motion of the arms, and so on throughout the body, and he lay for a fortnight unable to move or make a sign, save a pitiful tongue-inarticulate sound, which sometimes rose to almost frantic effort, all in vain, to make known what he wished to say to his family or friends—for his consciousness and mental faculties were left unimpaired till within two hours of the last, to aggravate to the uttermost the horrors of the situation—a living soul in a dead body. The sense of hearing was left unimpaired so that he was conscious of all around him, while as incapable of communicating with them as if dead, save by a slight sign of assent or dissent to a question. The doctors were fully agreed that tobacco was the sole cause of this stroke."

WHAT IS THE MATTER WITH THE CHILD?

HE is six feet in height and only sixteen years old! But though so very tall, he is as slender as a swamp-willow; no color in his face and as weak in his arms as a boy of ten; seems utterly indisposed to exertion, dislikes to move above all things, grits his teeth, and moans in his sleep; can't eat any but the very simplest food without being thrown into a fever, and worst of all, has a most awkward, unbecoming stoop of the shoulders, by which his chest is contracted and his back bowed. It is a pity! He is a beautiful boy in the classical chiseling of his pure features and all other outlines of his figure except his shoulders. What can be the matter with the boy? He is the child of a healthy mother; and his father was a splendid-looking man, of broad, ample chest and well-developed vital temperament, *but his habits were very bad*. He had been the spoiled child of a widowed mother, indulged from infancy in cakes, custards, condiments; allowed to drink as much coffee as he wanted, and that often amounted to four and five cups at every meal. Drinking coffee and cider gave him a bias to other stimulants; and when at college he got in the habit of taking deep and strong potations. These gradually, almost imperceptibly deranged his digestive powers and affected his vital organs. At thirty-five he could drink a quart of raw whisky, following it up with ten pounds of meat and bread in proportion. He married late in life. The child born to him, perfect as he seemed physically, was slow and eccentric in his mental processes. When twelve years of age he took a fresh start to grow, and ran up into the tall reed-like figure he is now, without strength, without endurance, and with a strong disinclination to study, an antipathy to all mental processes, and peculiarly unfit for the practical business of life; equally unable to strike sturdy regular blows with the axe or delve in the world of thought. There is no such thing with him as seeing at a glance, though his

mother is a woman of unusually quick perceptions. Now is it not the inherited nature of the father, enervated by long indulgence in drinking and gluttony, that has devitalized the son? Of course the boy's unhygienic habits, living all his life on fine flour bread, coffee, sweetmeats, as well as *mal-position* in hours of school or rest, has still further weakened and impaired his constitutional powers; but we maintain that here is a clear case of *Inherited Tendencies* to dyspepsia and heart-disease, brought about by the bad habits of one parent.

VIRGINIA DU RANT COVINGTON.

VEGETABLE FOOD.—A correspondent of *The Food Journal* says: "The following facts, which came under my own observation, may possess some interest for your readers. A few years ago, a case was brought under my notice by a medical practitioner of Brighton: a family, consisting of husband, wife, and five children, were in a very low condition of health through poverty. They lived upon cheap, adulterated bread; the consequence was that they all suffered from skin eruptions, the younger children from rickets and other symptoms of mal-nutrition. The medical man, who spoke to me on the subject, said if they could only have vegetables supplied to them occasionally, it would be better than living on bread of the bad kind which alone they could afford. I made an arrangement with my green-grocer to let them have a daily supply of vegetables at a weekly charge. The mother went for them herself in the evening. In a week there was a marked improvement in the health and appearance of the whole family, and in a month they had lost the eruptions and other troubles, their health being fairly re-established. This change was brought about entirely by means of the introduction of vegetables into their dietary, for they did not taste animal food all the time.

"Although I am not an advocate for an exclusive vegetable diet, yet I do think that many persons (domestic servants especially, who are very gross animal feeders) would be far more healthy, their blood more pure, and their skin less coarse, if they would eat more vegetables and less meat, as a rule. But the English are a prejudiced people, the domestic serving class particularly, and if they must 'die for it,' they will have their pound of meat at a sitting, and their hour for dinner, no matter at what expense or inconvenience to others, as well as injury to themselves."

THE temperate are the most truly luxurious. By abstaining from most things, it is surprising how many things we enjoy.—*Stimms*.

PARTS OF THE HUMAN BODY.

THE frequent reference made to certain parts of the human body in the SCIENCE OF HEALTH, and in our other publications, has led us to prepare the following illustrations, with explanations which will enable our readers to know the exact position or locality of each portion of the body. It is suggested that these be committed to memory, especially by the younger members of the family. It will be found a pleasant exercise to be able to name the different parts of your own body.



[No. 1.]

Fig 1—Designed to Show the Situations of the Internal Organs of Body.

- 1, 1.—Space occupied by Lungs.
- 2.—Space occupied by Heart.
- 3, 3.—Line of Diaphragm.
- 4.—Liver.
- 5.—Stomach.
- 6.—Small Intestines.
- 7.—Transverse Colon.
- 8.—Bladder.



[No. 3.]

Fig. 3.—Lateral View of the Situations of the Viscera.

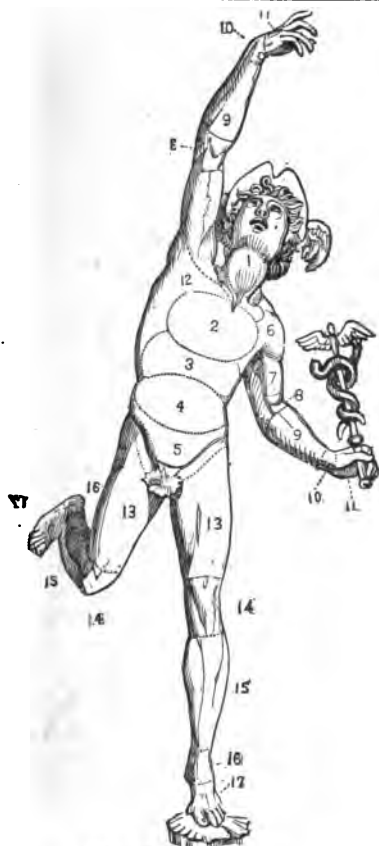
- 1.—Lung.
- 4.—Liver.
- 6.—Small Intestines.
- 7.—Beginning of ascending Colon.
- 8.—Bladder.
- 9.—Kidney.



[No. 2.]

Fig. 2.—Posterior View of Situations of the Viscera.

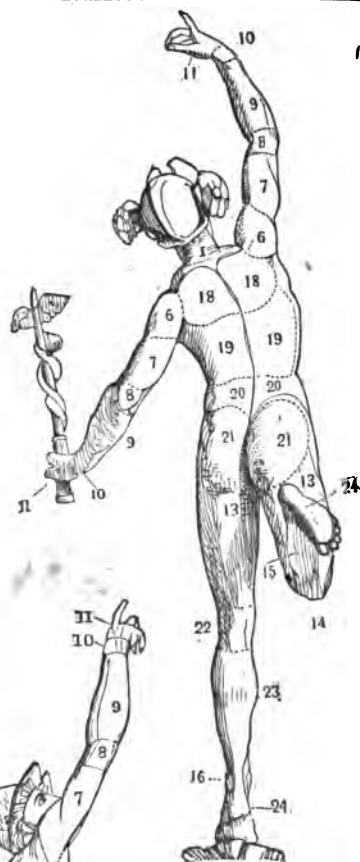
- 1, 1.—Lungs.
- 3, 3.—Diaphragm.
- 9, 9.—Kidneys—seat of pain in some diseases of those organs.
- 10, 10.—Spinal Cord.



[No. 4.]

Fig. 4.—Upper Extremity and Body.

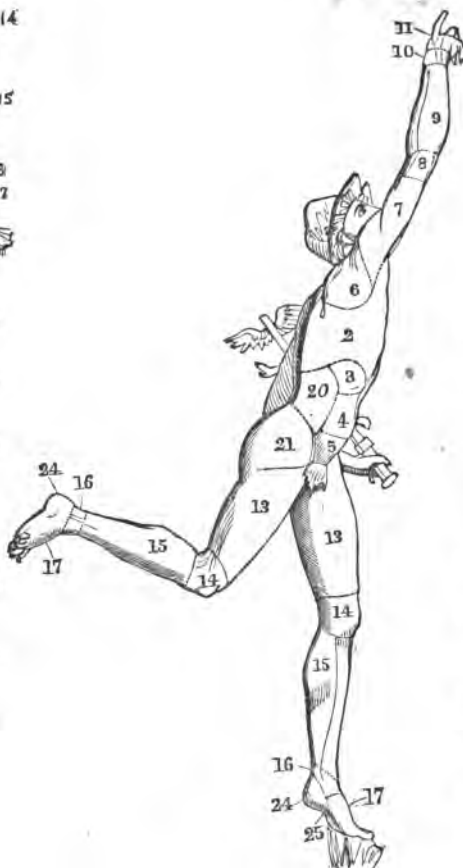
- 1.—Cervical or Neck region.
- 2.—Thoracic or Chest region.
- 3.—Epigastric or Stomach region.
- 4.—Abdominal or region of Belly.
- 5.—Hypogastric or region of Bladder.
- 6.—Region of Shoulder.
- 7.—Arm.
- 8.—Elbow.
- 9.—Fore-arm.
- 10.—Wrist.
- 11.—Hand.



[No. 5.]

Fig. 5.—Back or Posterior View.

- 1.—Cervical or Neck.
- 6.—Shoulder.
- 7.—Arm.
- 8.—Elbow.
- 9.—Fore-arm.
- 10.—Wrist.
- 11.—Hand.
- 13.—Thigh or femoral region.
- 14.—Knee.
- 15.—Leg or crural region.
- 16.—Ankle.
- 18.—Scapular or shoulder blade region.
- 19.—Dorsal or region of Back.
- 20.—Lumbar or region of Back.
- 21.—Gluteal or region of Buttock.
- 23.—Popliteal or back of Knee.
- 24.—Calf of Leg.



[No. 6.]

Fig. 6.—Nos. of References being same as for Figs. 4 & 5.

24.—Calf of Leg.
25.—Ankle.

HYGIENIC VS. DRUG MEDICATION.

From the English Mechanic and World of Science.

[THE circulation of the Hydropathic Encyclopædia, True Healing Art, and some of our other publications, in Liverpool, England, has led to a spirited discussion in the *English Mechanic and World of Science*, in which the novel theories of the author are attacked and defended by physicians on one side, and laymen on the other. This has elicited from Dr. Trall the following article, which covers the whole ground of controversy, and is a succinct statement of the scientific principles involved. Our readers will notice that the Hygienic system professes to have all the science on its side. We put it on record for future reference.]

AN esteemed correspondent, residing in Liverpool, has called my attention to the discussions on medical subjects which have appeared in late issues of your journal, over the signatures of "Beta," F.R.C.S., M.D., and W. H. Stone, in which certain theories which I have advanced as the basis of a true healing art are discussed pro and con. In some of these articles I find that my name and writings are treated in a style more forcible than polite. But I am sure that this is the result of a misunderstanding of my positions, and I therefore yield to the solicitation of my friend to make a brief and plain statement of facts.

PRINCIPLES OF HYGIENIC MEDICATION.

All healing power is inherent in the living system. There is no curative "virtue" in medicines, nor in anything outside of the vital organism.

Nature has not provided remedies for diseases.

There is no "law of cure" in the universe; and the only condition of cure is, obedience to physiological law.

Remedial agents do not act on the living system, as is taught in medical books and schools, but are acted on by the vital powers.

Disease is not, as is commonly supposed, an enemy at war with the vital powers, but a remedial effort—a process of purification and reparation. It is not a thing to be destroyed, subdued, or suppressed, but an action to be regulated and directed.

Truly, remedial agents are materials and influences which have normal relations to the vital organs, and not drugs, or poisons, whose relations are abnormal and anti-vital.

Nature's *materia medica* consists of air, light, temperature, electricity, magnetism; exercise, rest, food, drink, bathing, sleep, clothing, passion, influences, and mechanical or surgical appliances.

The true healing art consists in supplying the living system with whatever of the above it can use under the circumstances, and not in the administration of poisons which it must resist and expel.

Drug remedies are themselves causes of disease. If they cure one disease, it is only by producing a drug disease. Every dose diminishes the vitality of the patient.

Drugopathy endeavors to restore health by administering the poisons which produce disease.

Hygelo-Therapy (erroneously called "Hydro-pathy," or "Water-cure"), on the contrary, restores the sick to health by the means which preserve health in well persons.

Diseases are caused by obstructions, the obstructing materials being poisons or impurities of some kind.

The Hygienic system removes these obstructions, and leaves the body sound.

Drug medicines add to the causes of obstructions, and change acute into chronic diseases.

To attempt to cure diseases by adding to the causes of disease, is irrational and absurd.

Hygienic medication (Hygelo-Therapy) is not a "one-idealism" which professes to cure all diseases with "water alone." Nor is it a "cold-water cure," as is erroneously believed by many. It adopts all the remedial appliances in existence, with the single exception of poisons.

Growing out of these propositions are the following fundamental premises:—

1. In the relations between dead and living (organic and inorganic) matter, the living is active and the dead passive.
2. There is no chemistry in living structure.
3. Disease should not be "cured."

And if these premises are admitted, it follows that the regular medical profession, in all of its standard authorities, text-books, and schools, and in all its current periodicals, and in all its floating literature, and in all its history, and in all the lectures of its living authors, teaches—

1. A false doctrine of the nature of disease.
2. A false doctrine of the action of remedies.
3. A false theory of vitality.
4. A false theory of the *Vis Medicatrix Nature*.
5. A false doctrine of the relations of the disease and the *Vis Medicatrix Nature*.
6. A false doctrine of the relations of remedies to diseases.
7. A false doctrine of the relation of disease to the vital functions.
8. A false doctrine of the relations of remedies to the healthy structures.
9. A false theory of the relations of organic and inorganic matter.
10. A false doctrine of diseases in relation to their causes and effects.
11. A false doctrine of the law of cure.

12. A false doctrine of the nature and source of remedies.

These propositions comprehend all the premises of medical science; all the principles of the healing art. Each is fundamental. Without an exact knowledge of the truth of each, the physician can have no true medical science, no rational nor successful practice. All must be presumption or assumption in theory, and empirical or experimental in practice. His theory will amount to little more than technical gibberish—"incoherent expressions of incoherent ideas;" and his practice "blind experiments on the vitality of the patient."

And, lastly, I profess my ability to prove the falsity of the "popular medical system, and the truth of the hygienic medical system."

1. By facts universally admitted.

2. By the testimony of their advocates.

3. By the testimony of their opponents.

4. By the laws of nature.

5. By argument and logic.

6. By all the data of science applicable to the subjects.

These are bold, plain, sweeping asseverations—radical, aggressive, revolutionary. But I mean all that my words imply.

I cannot consent to notice personal slang, nor bandy epithets; but if any reputable medical or scientific gentleman will undertake to controvert, with facts and arguments, and real names, any one or all of the above propositions, I will undertake to maintain them.

R. T. TRALL, M.D.

OVERSTUDY.—HINTS TO SUFFERERS.

BY LAURA E. LYMAN.

THE aim of education, in its largest scope, is the *harmonious development of the whole being*—MENTAL, MORAL, AND PHYSICAL. The man whose brain is cultivated at the expense of his body is shorn of his strength; while he whose body only is sound is but half a man. When we see an intellect ardent, vigorous, cultivated, mated by a body strong, healthful and active, there we get a glimpse of the "crowning race that eye to eye shall look on knowledge."

Is it not a little strange, that in all the various examinations students are compelled to pass before obtaining admission to our schools and colleges, there is not a single question put as to the knowledge the student has of his own physical architecture, capabilities and resources? It is taken for granted that, as he has always lived in his body, he must know all about its structure, requirements, and laws, when that is just exactly what he is most ignorant of. Can he tell how many hours of brain-work will accomplish the most in the long result? how much he ought to sleep? how much time should be given to exercise? on what diet the brain will labor with least wear and tear to the body? These questions are vital, and ought to be as well understood by the applicant for admission to college as the Binomial Theorem, or the first five books

of Euclid. Entirely ignorant on these points, he determines to stand at the head of his class. He may be deficient in the preparatory studies, and have this to make up; or he may be short in funds, and take extra work so as to get through sooner, while he pinches on his diet, subtracts from his sleep, and infringes on his hours of exercise. As a direct consequence of the violation of the fundamental laws of his body, by the time his education is finished, his vital resources are so exhausted, that when he receives his diploma, he is a fitter candidate for the hospital than for the arena of the great world on which he longs so ardently to take his place. As a direct consequence of all this, he loses, in recuperating his wasted energies, more time than would have been required to complete his scholastic course without violating the laws of hygiene.

We copy the following from a letter lying before us: "I have suffered everything from the effects of overstudy. Having entered the army at sixteen, I was discharged five years afterwards with a sadly deficient education. I immediately entered school, and applied myself energetically to books, studying from sixteen to nineteen hours a day; but, as my means were limited, I could not continue at school more than about three

months at a time, else I should, perhaps, have ruined myself totally. As it was, I broke down at the end of four years, so that I lost about three years entirely, during which I did nothing but nurse myself."

The first effects of overstudy are, a heavy pressure on the top of the head, which, as it increases, confuses the thoughts, drives away sleep, deranges the circulation, and impairs the appetite. Nervous prostration, with its attendant listlessness and melancholy, torments the sufferer, and life becomes a burden.

The first thing to do, is to lay aside all books, and refrain from every form of intellectual activity. If the hands and feet are cold (and this symptom generally accompanies the pressure on top of the head), means should be taken at once to get them warm.

Bathing in a warm room, in water with the chill removed, followed by vigorous rubbing until the entire surface of the body is reddened, will aid in equalizing the circulation, and the direct rays of the sun falling through the window on the body while nude, will also help in securing the result.

For exercise, riding an easy-going horse is not surpassed in value by any other; indeed, this is the best antidote and cure for brain weariness. One great reason of this is found in the difficulty of thinking on one subject consecutively while riding; the motion of the horse, the change of scene, and the sense of freedom and strength at one's command, continually divert and stimulate the mind, while the circulation is quickened, the blood oxygenated, and the whole man refreshed, body as well as mind. Walking with a cheerful companion is very good exercise; but in whatever activity one engages, he should not permit himself to become overfatigued.

The patient cannot sleep too much. Everything calculated to excite the nervous system should be rigidly avoided. Tobacco, spirituous liquors, tea and coffee—all are tabooed. Hearty suppers should not be indulged in, nor animating company after nightfall, since the nerves

might be so roused as to refuse early and refreshing sleep.

The diet must be carefully regulated. All the grain portion of the food, as bread and mush, should be of unbolted meal. The external coating of wheat, and other cereals, contains the phosphates, and these give nutriment to the brain; they should be by all means retained in the food of everybody, in fact, but emphatically in that of brain-workers. Everything constipating should be avoided, and whatever will build up the shattered system obtained for it.

Green corn and celery are recommended as especially grateful to the appetite of those who have overstudied, and happy in their effects upon the nervous system.

All mental labor should be avoided, and everything, indeed, that wears upon the nerves. Despondency must be thrown off, and cheerfulness cultivated as that upon which everything depends. The patient may study or read for periods of five or ten minutes, but should stop before the warning pressure on the top of his head indicates that the time for mental application has expired. As health improves, the intervals of study may be prolonged, but with constant vigilance, until the brain is entirely sound again.

Within six weeks, three instances have come within our personal knowledge of young persons who have nearly ruined their health by overstudy; and since writing the preceding pages, a fourth was brought to our knowledge, which we dwell upon, hoping parents will take warning in time, and guard their children in this matter of most vital importance. A lad of sixteen, bright-minded, ambitious, and rapidly growing, a year ago last fall entered a preparatory school, and for fourteen hours every day devoted himself to study. This lasted during the entire ten months, at the close of which he bore off the highest prize for scholarship. Anxious to win still further distinction, and earn a little money during vacation, he studied three or four propositions every day in Loomis' Geom-

etry, kept his father's books in his city office, and, meantime, was growing at the rate of four inches a year. In September he entered the school again, and applied himself, as before, to his books. In three weeks the sense of pressure on the top of his head became so great, accompanied with utter nervous prostration, that he was obliged to give up books entirely, place himself under the doctor's care, and postpone entering college a year, and perhaps two.

All this time he was boarding at home with parents of more than average intelligence, who yet did not know enough to know that their oldest son was ruining his health by overstudy.

And what has been gained by it, all? Absolutely nothing. The lad has suffered great pain and loss, from which months will not recover him; the parents have been distressed with anxiety and apprehension, and there is a large doctor's bill to pay.

Every year young men go to untimely graves, not by mysterious visitations of Divine Providence, but by palpable and gross violation of the laws which govern their bodies, with which laws they should be perfectly conversant, but are not.

Every year young men graduate from our colleges with shattered constitutions, from overstudy, under-diet, and lack of exercise. They are not sufficiently instructed by their parents and tutors in the morality of hygiene to feel, that in thus undermining their health, shortening their days, and diminishing their capacity for usefulness to themselves and their fellows, they are, in reality, committing a crime against themselves, and against society, as really and truly as though they put a knife to their throat, or cut off their lives by poison.

We want educated men and women; men and women with bone, and sinew, and muscle, and nerve; men and women who understand alike the laws of the body and the laws of the mind, and conscientiously obey both—who have intelligence with respect to diet, and sleep, and exercise, and clothing, and every day

act up to the full measure of that intelligence. Should such a race ever live upon the earth, and we are working for that consummation so devoutly to be wished, to them will not all victories be given? With arms to do, and souls to bear, will they not wrench from science its last mystery, and give us those who, like Moses, with eye undimmed, and strength unabated, shall walk to the end of life's long pilgrimage?

FATAL RESULT OF A DRUGGIST'S MISTAKE.

DR. GEO. McROBERTS, a respectable physician of Stanford, Boyle Co., Kentucky, is reported to have lost his life recently in the following singular manner:

Not feeling very well after riding all night, visiting patients, he went early Wednesday morning, July 9th, to a drug-store in that village, and took a dose from a bottle marked "quinine" standing on a shelf. He then went to his brother's house to breakfast, but was taken violently sick on arriving at the house. He asked for an emetic, and shortly after taking it he died. The physician who was with him thought he died of neuralgia of the heart, as he was in delicate health. The next day, while the funeral was passing out of town, William Embry, a boy of about eight years of age, died suddenly, after taking some quinine out of the bottle from which Dr. McRoberts procured his dose. This was the last bottle of quinine remaining in the store. The death of young Embry excited the suspicions of the friends of Dr. McRoberts as to the cause of his death. Mr. Oliver McRoberts sent to Louisville, by Drs. Bailey and Payton, the bottle and one of the powders given to Embry, that the drug might be analyzed by some chemist of that city. Quinine and strychnia resemble each other in appearance and taste, and it is thought that the latter drug was put into the quinine bottle, by mistake, for the former, by the druggist who sold the bottle.

Dr. McRoberts was a bachelor, about forty years of age. He had a large number of friends in and about Stanford, where he has been practising for twenty years.

If the theory of the substitution of strychnia in a quinia bottle by the wholesale druggist is correct, the question arises whether other deaths will not be reported from different sections of the country from the same cause.—*The Druggist, N. Y.*

[And this is the kind of stuff dosed out to sick folks! It is seldom that a physician is found to take his own medicines; but when he does venture to do so, we see, as above, with what fatal results! Of course, this is called a mistake, but, we beg to inquire, is it not a mistake for human beings to swallow poisons under any and all circumstances? There are learned physicians who say so; and others who have said, "the less medicine we take, the better." Then why take any?

LIFE is a short day; but it is a working-day. Activity may lead to evil, but inactivity cannot be led to good.—*Hannah More.*

MADEMOISELLE'S SECRET.

BY BERTHA DAYNE.

I DO not imagine that the young ladies at Madame Laffitte's differed essentially from the pupils of other fashionable boarding-schools.

For they had, individually, the same small infirmities of character, the same petty ambitions and chimerical aspirations, and collectively, the same schedule of artificial proprieties and graces peculiar to undisciplined feminine youth whenever concentrated in large boarding-schools. So, in writing of this celebrated establishment, where the polite arts were exalted in perpetual apotheosis, while the English rudiments languished under siroccos of contempt; where "style" was considered chief of the virtues, and beauty the pearl of great price; where the Queen of Sheba was a more worshipful ideal than Deborah of the prophets, or Dorcas of the saints; where glammers and mirage of the spiritual atmosphere made Delilah's beauty glorious, while the sweet mother of the Nazarene was cast into the nebulae of forgetfulness. I need not describe it more fully.

My feminine readers need only to recall their last quarter at Madame Finnesse's to realize fully the animus of the institution. And they need only to read over that year's catalogue and rehabilitate the Céciles, the Emilies, the Maries, who represented the Cecílias, the Emmelines, and Marys of the senior class, each with her respective essence of character, to understand the elemental influences which formed the moral atmosphere of the school.

Long established schools, like cities and nations, upon which the hoar-frost of age has fallen, have not only their histories, but also their traditions. And it is as true of one as the other, that while its history lives merely in the minds of its pupils or people, its traditions, vaporous and mythical as they may be, have yet vital, pulsing form in their hearts, springing from heart to heart through

magnetic speech and electrical sight, with their youth renewed by every recital, although the century of their birth no man can tell.

If I were to give a graduate of any fashionable boarding-school the scantiest outline of the traditions current at Madame Laffitte's, she could easily fill out the sketch. And if I were to begin the recital of the favorite one of all, of a pupil who, in a pre-historic age of the school, had become possessed of some secret art by which she made her cheeks to fade the rose, her brow to shame the lily, her eyes to dim the stars, that graduate could supplement the story wherever I left it incomplete. For, also, at Madame Finnesse's were legends of that famous maiden whose washes and lotions—unlike the vulgar cosmetics of the present day—were genuine beautifiers, leaving no debris of sallowness and wrinkles when the ball and towel had done their work. She could tell you that all "finishing" institutions, as well as Madame Laffitte's, have romances of the maiden fair and stately as a garden lily, who always slept in silk masks anointed with odorous creams, and who always came down to the early school breakfast—where the other girls were sleepy-eyed, with skins parched from yesterday's powder, and mottled with yesterday's rouge—as radiant as a young Aurora, from her magical masks and cleansing unguents.

This tradition tells that the other girls became bewitched with desire to know the mystic spell of her beauty, and coaxed, cajoled, entreated, prayed her to bless them with the secret; and that even the madame herself often focussed penetrating glances upon her, as if to draw the mystery into revelation. But this rare maiden kept her secret inviolate, by always denying its possession, and went forth into the bright world, to dazzle and to triumph wherever fate led her, till the culmination of all a boarding-school girl's most gorgeous fantasies was in a marri-

age so exceptionally brilliant that queens might envy her. But farther than this the tradition does not run, for in the dramas of boarding-schools a magnificent marriage is the grand transformation scene, in which the heroines disappear forever from the world's knowledge.

As I have said, this romantic tradition is popular in all *polishing* schools, and if I have indicated it only obscurely, there are those of my "polished" readers who can vitalize their memories into reproducing it in all its original resplendence.

"Antwanette," said a dark-eyed girl, as she swung herself around on her piano-stool, "have you seen the new French governess?"

"No," answered "Antwanette," without raising her eyes from Miss Braddon's last.

"She's a perfect beauty. It will pay us to smile upon her sweetly till we find out what powder she uses. I declare I never saw a more artistic complexion in my life, just rouge enough to illumine her eyes without giving them a glare, and *such* a satiny softness of white as we never have approached, with all our experimenting."

"I suppose she is a blonde, isn't she, as that beautiful Miss Flint was, of whom the girls are always raving?" said the now alert Antoinette. "I suppose that Miss Flint could make herself a second Recamier, just because she was blessed with one of those skins that take powder as flowers take dew."

"I believe she *was* a blonde, but tradition hath it that she never used powders and rouges, only some kind of a wash that made her skin so pure she did not need cosmetics. By the way, did you ever hear of her fortunes after she married Count what's-his-name, and went abroad?" said the Cleopatra-like Elise. ("Lize" her wayward brothers called her, but what does that prove save that brothers are a crucifixion of the spirit, and are intended in the wise purpose of creation only to develop the beauty of the sisterly character, as the waste marble dust serves its purpose in polishing the noble statue.)

"Ah, here she comes now!" she continued, without waiting for Antoinette's answer, and overturning the piano-stool in her haste, rushed to the window.

"Who, Miss Flint?" asked Antoinette, languidly turning again to her novel.

"No, of course not, stupid!" replied the serene Elise. "I don't believe even the famous Miss Flint had such a lovely complexion as this Mademoiselle Decombe. See! isn't she grace itself?"

The young teacher came slowly up the broad avenue leading to the main entrance, quite unconscious that a dozen pairs of eyes from half a dozen different windows were watching her movements, while their owners commented upon her unusual beauty.

Fidèle Soulé (named for Aunt Jane Fiddel, of Onionville) ran into the music room, where Elise and Antoinette were peeping through the lace curtains, and interrupted their dispute as to whether the pretty teacher was over or under nineteen, by saying:

"You ought to see her under-clothes, girls! Prescott, the laundress, says they are the daintiest she ever saw. There's some mystery about her, I'm sure, for madame says she is from a family of the highest culture, and I know she wasn't born to a teacher's estate. It won't do to pump 'Madame La Sphinx,' of course, but I'm dying to know about her. Mon Dieu!" (she meant *ma chère*, but unfortunately she was quite fallible as far as the integrity of her French was concerned, although she had been six months at Madame Laffitte's;) "did you ever see a greater triumph in the way of complexion? I declare I can hardly wait to graduate, I do so want to go to Paris and learn the toilette secrets of these Parisiennes."

"Laura says her toilette-table is crowded with bottles," said Elise, who was not above the small indecorum of putting a syphon into the chambermaid's reservoir of gossip.

"I'd give my quarter's allowance to know how she makes that beautiful color!"

"Your head's level!" cried the some-

what over-exuberant Fidèle, who not unfrequently forgot the dignity of her position as pupil at Madame Laffitte's, and flched her exclamations from the stock of the American boy of the period; "That's the ticket! You are just the one to ferret out what we all desire to know. It will be the old story over again, won't it—the seekers after complexions *vs.* Miss Flint? But we mustn't let our paragon slip away from us as those girls did, without telling us what we shall do to be saved from muddy complexions."

"They say that the beautiful Miss Flint for one thing, never thickened her skin as you girls do by drinking tea and coffee," said Elise, rather spitefully, thrusting a dagger of reproach into the consciences of the others, whose spirits were willing to sacrifice their morning and evening beverages, but whose flesh was too weak.

"Well, I don't consider *you* quite a Venus, nor does your beauty entirely efface the name of Ninon d'Enclos from the memory of men," retorted the inert Antoinette, whose temper was quite independent of the lymphatic limitations of her body, and who generally struck fire upon the least insinuation that she had not encompassed the whole diapason of feminine possibilities in the way of beauty.

Mademoiselle Decombe's complexion became the absorbing theme of conversation among the young ladies, in the days that followed. Some little attention, to be sure, was paid to the interesting truth, that her movements were more sinuous, and her form more lithe and graceful, than any the school had seen since the days of the beautiful Miss Flint; also, that her bust was not the conventional bust of French boarding-school misses—a creation of cotton batting, sea-grass, or india-rubber, but of shape such as would have been an inspiration for Canova, or the model of the Medician Venus; while her waist, elegant as it looked in her perfectly fitting dresses, measured more inches than any other waist in school, except Desirée Jones', and *she* (Desirée) weighed one hundred

and sixty pounds; but her beautiful complexion was, after all, the great centre toward which all thought and speech gravitated.

Some of the girls, either more obtuse in their intuitions of propriety, or grown more desperate than the rest, finally asked her directly the secret of her wonderful purity of tint. And her answer was such as marked her in the esteem of the school as a deceitful little minx, who hid a spirit full of artifice, and a character affluent in wiles under her innocent seeming. For she actually laughed blithely at the question, and in the most guileless manner possible, exclaimed: "Cosmetic! why, I never used such a thing in my life!" So white is the marble beneath which truth lies sepulchred!

As the excitement grew more intense each day, while the pretty teacher went in and out among them unconscious that her fair face was the apple of discord, thrown among them to arouse envy, excite jealousy, and create suspicion, various schemes were proposed to force the secret from its possessor. Every day one or another suggested a new device by which Mademoiselle was to be entrapped into discovering the mystery to them. Every day, too, somebody added to the general fund of information concerning her, some little item of her habits; one said that she herself declared that her sinuous grace came of her freedom from corsets. And here imagine a boisterous interlude of "ahs!" "ohs!" and "don't believe it!" caused by the futility of the boarding-school mind to receive the idea of grace without a correlary of corsets.) Another, that her habits of diet were simple, that she was a very Amazon in her love of physical exercise, that she drank neither coffee or tea, and kept her cosmetics hidden, where not even the chambermaid had ever espied them, etc.

But one fateful day, when anxiety was fast waxing into despair, a sibyl arose in their midst. Desirée Jones, who hitherto had received the generous measure of contempt rightfully due the offspring of opulent soap-boilers, immortalized herself by a brilliant suggestion:

"Give Laura ten dollars to find out how Mam'selle preserves her complexion, and she'll do it."

Of course! Why had'nt they thought before to emphasize their inter-quizzings of the chambermaid with filthy lucre?

Thus it came to pass that two days later, a session of the investigators was called to hear the report of the member deputed to act with Laura. This member, Amélie Fidèle Soulé (euphonized from Amelia Fiddel Soule), evidently floated bouyantly on the crest of the waves of success, for her eyes danced, and her voice was jubilant, while in her hand she held a small vial, which she seemed to treasure as a precious thing. "Girls," she said, "behold in me your feminine Archimedes, and join me in shouting 'Eureka!' for behold! Laura and I have at last discovered the secret that has thwarted us the whole term, and there is now no reason why Mam'selle should have a longer monopoly of roses and lilies. Of course, the leopard can't entirely change his spots, and so, as we can't metamorphose our temperaments, Elise will be ever a brunette, and Desirée ever a red-headed blonde; but here," and she shook the small phial triumphantly, "*here*, my sweet demoiselles, is the enchanted elixir which will fade all freckles, reduce all bilious spots, dissipate all sallowness, and give us all complexions as radiant as the goddess of the morning's!"

The vial was passed from hand to hand, was held against the light, was sniffed at inquisitively, and shaken earnestly, while Fidèle continued her exordium.

"This milky fluid, that you see, was extracted by our faithful emissary, Laura, during Mam'selle's brief absence from her room, from the bowl in which it was prepared by Mam'selle for her use. I assure you, my beloved hearers, that this brief absence was procured by the humble individual who addresses you. I knocked at her door as Laura gave signal that she was at her toilette. This semi-transparent fluid that you see, with its faint sweet perfume, hinting the secrets of the harem's loveliness, holding in its crystal globules the mystery of the Circassian

girl's marvelous bloom, more potent than the asses' milk in which Roman belles immersed themselves, to put the face in rivalry with snow-drop and carnation, is what our artless French governess uses twice a day to make her complexion the peerless thing it is."

"All very well," responded the cynical Elise, "but what good will this modicum of enchanted fluid do us? It is not enough to idealize the tips of our noses, and Laura tells us that Mam'selle takes a full bath in it twice a day."

"Yes, lovely pessimist, you speak truly; but, do you forget that there are chemists, and alembics, and laboratories, and that what chemistry *has* done, chemistry may do again?" said Fidèle.

Accordingly, that very day, before sombre night had closed his wide arms around Madame Laffitte's pupils, the little phial, securely sealed with wax, and wrapped in tissue paper, was carried to a responsible chemist, with orders that the mysterious contents should be analyzed, and the analysis submitted without delay to the young ladies whose names accompanied the order.

And it likewise happened that the very next day the daughter of a count carried to the parlor a small package received at the door, addressed to Miss Elise King. And this daughter of a count, as she for one brief moment held this package, did it unwittingly, that the traditions that preserved the memory of her mother's beauty, as well as the envy that assailed her own, had brought to her the duty of delivering that letter to the supercilious Elise.

But she gave little heed to the hauteur Elise had assumed towards her, now that the secret of her fairness had come into public possession, for her heart was full of tender thoughts of the beloved mother whose Madonna face, upon which art had never laid desecrating touch, had grown so sad in the days when the havoc of the Commune had swept through their lines. She thought of that holy face, illumined with faith, and love, and patience, in all the days of their trial—that pallid face, upon whose alabaster no rose-tint rested

till the air of America, her native country, kissed her cheek. She thought of her reverently, as her "angel mother;" she whom the traditions of the school celebrated as only "the beautiful Miss Flint." And Mam'selle's heart sang such a joyous little song, that she was that day to return to the dear parents whose fortunes had lately brightened, that she

did not hear the howl of disgust which arose among the young ladies in the parlor as they read the chemist's communication:

"YOUNG LADIES:—Chemical analysis is not necessary to prove the liquid :

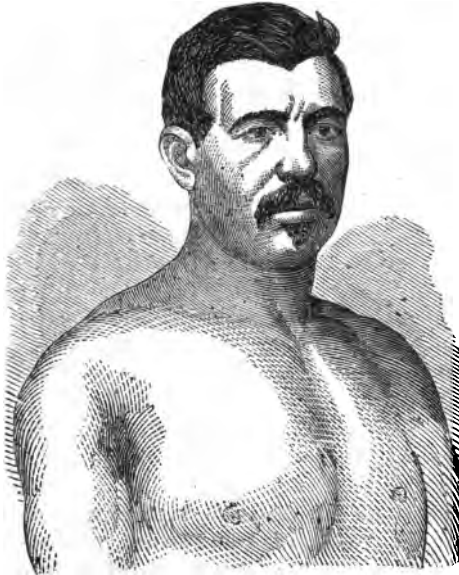
999 parts *Aqua* (pure water)

1 part *Sapo* (Castile Soap)

"Respectfully, DUGALD STEWART."

DEATH OF HEENAN, THE PUGILIST.

TRAINERS of boxers and pugilists have taught one important and useful lesson, as an offset for the demoralization which their low and brutal practices produce. If the man under training for a contest in the prize ring be too heavy, or have too much fat or muscle, they can, in the course of a few weeks, reduce him to what they consider his proper fighting weight. That



The above portrait is taken from "New Physiognomy." It was engraved from a photograph, and designed to show the effects of bodily training in developing chest and muscle. We reproduce it now, with remarks on the subject of right and wrong living, and to show the ill effects of excess.

is to say, by drill, work, running, boxing, and a severely abstemious diet, in which no stimulants and no condiments are used, they bring him down, without weakening him, to the proper working—fighting—weight. A lean horse can travel better

than a fat horse. Or, if the man be too light, the trainers can, by their scientific methods, add ten, fifteen, or twenty pounds to his averdupois. There are many invalids, broken down clergymen, and over-fat apoplectics, who could be restored to equilibrium and health by just such training as is practiced by prize fighters! It is not drugs, bitters, pills, or plasters, thin dyspeptics and the over-fat folks need; it is careful dieting, careful grooming, and scientific training. The health-lift, the gymnasium, horse-back-riding, boat-rowing, etc., are all useful in their way; but, to attain the very best results, one must be "trained." As it is with the bones and muscles of the body, so it is with the faculties of the mind. *They* must be exercised, called out, practiced, *trained*, if the best results would be secured.

Referring to the death of Heenan, the boxer, the *Scientific American* makes the following sensible remarks on

PHYSICAL AND MENTAL OVER-CULTURE.—A noted British novelist, now on a visit to this country, in one of his most popular narratives, exemplifies the case of an athlete who, by a severe course of training, has brought himself to a high state of physical perfection, in order to compete in the lists of a foot race. When the time arrives for the test of his powers of endurance, the runner begins his task; but ere he can reach the goal, his overtaxed system gives way, and he falls stricken with paralysis, a hopeless bodily wreck. Instances of similar kind in real life are but too common.

The death of the celebrated oarsman Renforth while at the thwart is still within public recollection, and the decease of Heenan, the once famous pugilist, is a more recent exemplification of the retributive action of Nature when the laws by which the confines of the possibilities of human muscular effort are transgressed. A man's body may be compared to a finely adjusted and accurately balanced steam-engine, and his vital energy and mental power to a constant motive force acting upon a uniform area of piston. It needs no demonstration to prove that an engine has a certain fixed

capability; it can develop so many horse-power, and then reaches its limit. If we make more ponderous wheels or stronger rods and shafting, equal to the performance of much more arduous work, and then expect that the same power, merely by operating such heavier machinery, will produce increased results in overcoming greater burdens, common sense tells us that we look for an impossibility. And yet this is precisely what we seek to accomplish by causing exaggerated muscular development. We destroy the equilibrium of the machine; and as a result, the action of the power by which it is set in motion is either weakened or arrested. The physical seat of vital energy in the human frame are in the so termed vital organs: as in the overtaxed steam-engine the molecules of vapor dash and expend their force against the piston unproductive of any motion; so in the body, one part (the heart), unable to drive the increased flow of blood required for the augmented needs of other members, becomes overwrought and eventually diseased; the lungs, equally unable to maintain the process of burning up the effete matter poured into them by the veins, degenerate and waste away; and the brain, failing to establish the connection between motor nerves and will, shatters by paralysis the delicate mechanism. All, in fine, are causes which as surely arrest the motion of the human machine as does the load beyond its powers that of the apparatus of iron and steel.

The case of Heenan illustrates these truths perhaps as forcibly as any that can be cited. The man was a model of physical perfection, not ponderous in build or gigantic in frame, but to all appearances one in whom the parts of the body, while cultivated to their full extent, remained in statuesque symmetry. And yet, despite the capacious breast and broad shoulders—points in themselves supposed to indicate almost unlimited strength of lungs—these last mentioned members, in the constant strain upon the system, proved unequal to their task, and fell prey to the wasting and insidious disease which resulted in death.

[Just here we beg to interpose an objection in this case. While in training for the ring, Heenan was all that the writer claims, in bodily completeness and power. He did not drink; he did not smoke, chew nor snuff tobacco, till *after* his great prize fight. That over, how was it then? Did he not keep a liquor saloon? and did he not begin to run down by wrong living, not to say by dissipation? We doubt if he would have died so young, had he lived as he ought.]

While, with such evidence as this before us, the tenets of the ultra advocates of "muscular Christianity" may well be questioned with reference to the benefits derivable from the attainment of a so-called high physical condition; on the other hand, it is true that no less dangerous results are to be apprehended from the converse practice, the development of the mind at the expense of the body.

Again referring to the steam-engine for a simile, let us consider the consequence, supposing that working parts and load remained constant, of our crowding into the cylinders an enormous steam pressure. Manifestly there would be either a much more rapid wearing out of the machine, caused by the overwhelming power, or more probably the complete breakdown. Thus it is with the individual who, by excessive study and brain-

work, overweighs the balance in the contrary direction, and, by neglecting to maintain the equilibrium of mind and body, succumbs to the impoverishment of his physical system. Illustrations in point are to be found among the members of every profession, among the students of every institute of learning. Young men, ambitious to gain scholastic honors, and spurred on by the applause of preceptors and friends, too often find failing health and despondent spirits the precursors of permanent bodily infirmity, induced by over-strict application, too many hours of study, absence of simple and nourishing food, and neglect of wholesome exercise. Undeterred by premonitions of Nature, toward the close of their course, in order to reach a coveted prize—as valueless to them in after life as it is intrinsically worthless—they tax their energies beyond their powers of endurance. Then, as the runner in the race, or the oarsman at his oar, physically breaks down at the moment of trial, so the overworked brain succumbs when it is subject to the final strain. The student, whose hollow eyes, pale face, and wasted form denote nights of unvaried toil, finds his powers inadequate to do him justice, and his memory fleeting at the hour when he desires the firmest aid; and he endures the bitter experience of seeing others, intellectually beneath him, but physically his superiors, withstand a trial before which he falls.

[Not a word or even a hint is given here of one of the most prolific and palpable causes of "failure" in our schools and colleges. We need only name tobacco, and improper personal habits, as the cause of sapping many a fine constitution and bringing it down to a premature grave.]

Study is to the mind as exercise is to the body: both alike act as developing powers, but neither body nor mind can be carried to a relative excess of cultivation, except at the expense of the other. "*Mens sana in corpore sano*" does not refer either to pundits or prize-fighters. It means a mind well balanced, well organized, and varied in ability, coupled with a body healthy, vigorous, and strong—the one capable of grappling with the highest thoughts and ideas, the other with the deepest ills and obstacles incident to every walk in life.

[Yea, verily; but it is not so much the fault of over-study, or over-training, as it is wrong living, bad habits, irregular hours, and dissipation that breaks one down. A sound mind can only be found in a sound body. The business of childhood is to grow, to take on constitution, rather than to commit four thousand Bible verses to memory, or to fight in a prize ring.]

If mankind were all intellect they would be continually changing, so that one age would be entirely unlike another. The great conservative is the heart, which remains the same in all ages, so that common-places of a thousand year's standing are as effective as ever.—*Hawthorne*.

THE GOBLINS OF PATHOLOGY.

BY R. T. TRALL, M.D.

A MODERN medical miracle, involving physical and metaphysical, logical and psychological conditions, as complicated, if not as unaccountable, as is this introductory paragraph, has been traveling the rounds of newspaperdom for several months. Medical miracles are not such uncommon affairs that any one need be unnecessarily astonished when they "happen to occur." They are occurring continually. Every physician may be said to effect a miraculous cure, at least negatively, when his patient refuses to die, after being dosed *secundum artem*. The greater miracle—the miraculous miracle—is that any one recovers.

But the particular miracle I am alluding to has special claims to the attention of persons who see pathology and therapeutics from the Hygienic standpoint. Moreover, the miracle is attested by medical gentlemen of the orthodox persuasion, who are presumably not over-much superstitious. It occurred in the enterprising city of St. Louis, Mo. The facts, abbreviated to a plain statement, are as follows :

The patient, a young lady of frail organization and delicate health, sickened unto death. Indeed, friends and physicians regarded her as really dying, and so announced and pronounced. In this condition she experienced an apparition. As usual, when apparitions make their appearance, the patient, or party appeared to, was in a state of mental obfuscation or unconsciousness. The next day the patient was well. Her explanation of the phenomenon is this : Soon after receiving extreme unction from the priests, she recovered consciousness and saw the Blessed Virgin, who, on her promise to become a sister in the convent, etc., restored her to health.

The physicians in attendance testify as follows, which testimony appears in the St. Louis and numerous other newspapers :

MEDICAL STATEMENT. — Theresa Schafer was

admitted as an out-door patient of the "Female Clinic" of the Sisters of Mercy, in April, 1871, on the recommendation of Doctor W. H. Cooper, who had been her medical adviser for some time previously. The history of the case, as related by the patient, and confirmed by Dr. Cooper, is briefly as follows : "For two years she had been in bad health, gradually getting worse; though she had employed some six or eight men, she had derived little or no benefit from treatment. At the time of admission she complained of great pain over the region of her liver, general debility, and occasionally severe attacks of intermittent fever. Upon examination, great tenderness was found over the abdomen; and in the region of the liver there was a large and well defined tumor extending low in the abdominal cavity, which was exceedingly painful when manipulated.

Among the physicians who examined her, I may mention Doctors Papin, M. A. Pallen, L. Charles Boisligniere, Y. H. Bond, W. H. Cooper, J. Dulaney, and others. Various methods of treatment were suggested, tried, and were of no avail.

On the morning of Saturday, August 26th, I was consulted by the sister in charge to know if the last rites of the Church should not be performed, or rather to learn if the patient was not dying, so that the sacraments might be given. I found her in an unconscious, and evidently in a dying, condition. It was my impression that she might survive as much as twenty-four hours, hardly more. On the following day I found the patient entirely well, the tumor was gone, the functions of the body were evidently in a perfectly healthy condition, and properly performed.

M. YARNALL, M.D.,

N. Ninth street.

So far as the above came under my observation, it is correct.

W. H. COOPER.

I saw Theresa Schafer the day before she recovered. I am satisfied she was then in a dying condition, and that no human skill could cure her. I saw her again the Monday following, i.e., two days after her cure. I examined her then thoroughly in the presence of Drs. Cooper, Quarles, and Yarnall. She was perfectly well, and no traces of her disease left.

Dr. TIMOTHY L. PAPIN.

The facts are indisputable; the testimony is overwhelming. But what do they prove? Just this: The patient had an abscess of the liver, the consequence of protracted chronic inflammation, aggravated by the medication. Immediately preceding the opening of the abscess into the bowels, the organ was so swollen and tender that it impeded respiration and induced congestion of the brain, to the extent of inducing unconsciousness, and a condition mistaken for that of dying. When the abscess broke and discharged, the tumor disappeared; the breathing became normal; the brain was relieved, and the patient was comparatively well. This is the whole case,

give what praise or blame you will to doctors, priests, or Blessed Virgin.

Lest the reader may suppose that the physicians above named are illiterate charlatans, let me state that they are members of the St. Louis (allopathic) Medical Society; that they are gentlemen of recognized eminence in their profession, and that their names, as authors, are familiar to readers of medical journals. I do not deny any word of their statement. I simply explain it.

I have at this writing a patient under treatment who has been affected in a similar manner, although not quite so severely—Mrs. Greene, aged 50, of Manassas, Va. Six weeks ago, in response to a telegram, I sent her a woman doctor, who found her sick of chill-fever, with an enlarged liver, causing a prominent tumefaction, with great tenderness and difficult breathing. She was brought to Florence Heights in a Pullman palace-car and placed under treatment. Luckily, she had not taken much medicine. Fomentations during the cold stage, and tepid ablutions during the hot stage, relieved the febrile condition in a few days. Then came a collapse. The patient had severe rigors without heat, or "ague" without the "fever." We diagnosed abscess of the liver, which subsequent symptoms justified. She is now about house in comfortable health, and can be seen by any one who wishes to investigate a Hygienic miracle—just such a miracle as Hygienic physicians are performing every day in the year.

The St. Louis physicians made an egregious blunder in diagnosis. They mistook the chills, which always attend deep-seated abscesses, or extensive ulcerations of any kind, and the hectic flush which always accompanies them, for "attacks of intermittent fever," and they seem not to have had the remotest suspicion of the real nature of the swelling, which they have miscalled a tumor. The fact that the "tumor" was "exceedingly painful when manipulated," ought to have suggested a swelled liver in the process of suppuration. A common boil presents exactly the same pathological

condition, and is very tender if manipulated while pus is forming; and, if very large, is attended with the same "attacks of intermittent fever."

As to the visionary phenomena, physicians ought to understand that in all cases of disturbed respiration and cerebral congestion (as is frequently manifested in the delirium of typhoid fevers), patients are liable to all possible sight-seeings, illusions and delusions—ghosts, goblins, spooks, phantoms, spirits supernatural and spirits infernal, whose nature, character, and mission correspond with the mental exercises of the patient preceding their "attacks." Let me administer to any person just such doses of alcohol, morphine, ether, etc., as I please, and I will agree to fill the room, so far as he is concerned, with as many ghosts, goblins, spectres and personages, as he will care to have as visitants; and I will further agree to so manage the doses as to make the "apparitions" agreeable or disagreeable—good and loving, or diabolical and horrid—"to order."

PATENT MEDICINE VENDERS.

AN action for libel was lately brought against the *American Agriculturist* by a Dr. Ryan, a patent-medicine vender. Judge Brady, of New York, before whom the case was tried, gave the following opinion:

1. "A medicine that claims to be an antidote, but is not, is calculated to deceive, and is a fraud.
2. "The seller of a drug or medicine, who vends it with an unqualified statement of its efficiency, must take the consequences if his representations be untrue.
3. "That men should be held to a strict accountability who attempt to practice on the credulity of the afflicted."

We fully concur in this interpretation of the law, that any man who buys a nostrum advertised to cure a certain disease, and is made worse, or is not cured, can bring suit and recover damages from the vendor of said nostrum. We trust that those injured, or not cured, will apply for damages in such numbers as to frighten these unprincipled men into propriety.—*Canada Lancet*.

[Very well. Now, let us suppose that a *drug* be prescribed, not by a quack, but by a "regular," and that it do not cure, but kill the patient, what then? We take it that all the drugs in the universe cannot cure any living thing. Shall not the doctor who prescribes, and fails to cure, be held responsible? We are rather in favor of this proposition, and should like to see it applied. There would then be, if no cure were wrought, a suit for damages for false pretences. Under this rule, how long would the science of medicine stand?]

HOW QUACKS THRIVE.

THE *Boston Journal of Chemistry* publishes the following fact, which will find a responsive echo in the experience of many a poor, deluded victim:

"The amount of money paid to medical quacks in this and other cities every year, is much greater than is supposed, and the ingenious ways in which large sums are extorted from their frightened dupes should be better understood, not only by those who are in danger of becoming their victims, but by the officers of the law. We recently became cognizant of a case which, although flagrant and cruel to the last degree, is no worse than hundreds of others occurring every day in the dens of these thieves, scattered through some of the less frequented streets of the city.

"A gentleman, who had in his employ a young man of industrious habits and upright character, recently called upon us and stated that he feared the young man had fallen into the hands of a quack in the city, who was taking all his earnings, and endeavoring to fleece him of every dollar of his property. He had solicited the loan of seven hundred dollars, which he confessed he desired to pay to a French doctor (!) who proposed to cure him of a dangerous disease. The gentleman desired us to aid him in attempts to save the victim from the clutches of the quacks, and, as he had been unable to influence him, proposed that we allow him an interview.

"This we did, and learned that the young man really had no disease whatever; that fancying he was sick, from reading the advertisement in a newspaper, he called upon the advertising doctor, who, after thumping his ribs and "sounding" him with a stethoscope, pronounced him 'far gone' in consumption. He had already been taking his nostrums six months, paying large sums therefor; but at the last visit to the great French doctor, he had discovered a new disease, which he could not undertake to cure for less than \$1000 cash in hand. As a special favor to him, however, he would cure the malady for \$700

in advance; and this sum he was endeavoring to raise by mortgaging his little property and rendering himself almost penniless. The quack was very urgent, telling him that 'death stared him in the face,' and if he did not raise the money at once and commence with his medicines, it would soon be too late.

"The young man, of fair intelligence, was completely deluded and thoroughly frightened by the artful quack, and it required much skill and effort to undeceive him. It is, indeed, strange that persons possessing a common school education can fall into such traps; and yet there are thousands bound hand and foot to these miserable advertising quacks, who, operating through their fears, are extorting from them every dollar they possess. The sums taken are often very large, and the iniquity is of no mean proportions. To detect and punish these offenders is a difficult matter, but it does seem that some plan might be devised by which the cities and large towns could be rid of a class of impostors, more dangerous and unsparing than midnight robbers."

[Now, while we feel it a duty to warn the public against every sort of medical quackery, we do not hold regular physicians guiltless for the part they play in one of the greatest, and therefore wickedest, delusions of the age—of any age—namely, teaching the people that their poisonous drugs, drunkard-making bitterns, and cod-liver oil, etc., possess healing or health-giving properties. They—regular physicians—know better; know that the people who swallow much or little of their stuff are made worse rather than better for so doing. It is no wonder that quackery thrives, under such a state of things. When the teachings of THE SCIENCE OF HEALTH are accepted, there will be no more regular nor irregular medical quackery practiced on a long-suffering people. Friends, help us to "down with quackery and up with common sense."]

EVERY man desires to live long; but no man would be old.—*Swift*.

LET no man value at a little price a virtuous woman's counsel.—*George Chapman*.

HERITAGE OF WOE.—A PICTURE.

BY MRS. AMELIA E. BARR.

"LORD of himself—that heritage of woe!" is the affected complaint of Lord Byron. No man was ever more mistaken. If, indeed, we were lords of ourselves, we should not be subject to original sin, whiskey, ignorance, and those still more fearful inheritances—constitutional tendencies to disease and crime.

For man is not only the child of the *species*—he is also the child of his parents, and he inherits from them not only his form and appearance, but also their acquired habits, their acquired intellects, virtues, and vices. This truth, dimly apprehended in the days of Aristotle, is now universally acknowledged; as well as one still more heavily fraught with responsibility to every parent—that while beauty, virtue, talent, *may be* transmitted, an acquired habit or an acquired vice "scarcely ever fails to leave its trace upon one or more of the offspring, either in its original form or in one closely allied to it." One other fact in connection with this is equally noteworthy—that while what was *only habit* in the parent, too often becomes in the child an almost irresistible instinct.

So, then, if a bad habit becomes, by transmission, often a fearfully active vice, it is easily seen how the sins of the fathers are visited upon the children, without any visible intervention of the divine vengeance.

To deny that the moral nature of a parent influences his descendants, would be to demand a continual re-creation of soul for each individual; and the very premises of such an argument would take us behind the doctrine of original sin and the Book of revealed truth. On the contrary, the Bible distinctly asserts moral heritage; else what did our Saviour mean by reproaching the Jews with being the descendants of those that killed the prophets? How else, but as a fresh incarnation of their parents' sin, could they "fill up the measure of their fathers' iniquity?"

Burchard, one of the most profound

of physiologists, says that "heritage has in reality more power over our constitution and character than all the influences from without, whether moral or physical;" and Fernellius* declares, "that it is the greatest part of our felicity to be well born, and that it were well for human kind if only such as are sound of body and mind were suffered to marry."

However, it falls within every one's experience to *know* that passions and vices are hereditary. Not merely that the child of the drunkard becomes a drunkard by the force of his father's example and education, but because he *inherits* a direct constitutional tendency towards it. Indeed, M. Lucas (than whom I know no higher authority on this subject) says, "that example, education, and even compulsion, fail to make a criminal, unless the *true first cause*—hereditary influence—is present. This is a hard saying; nevertheless, let no parent reject it until they have taken it into their heart of hearts and examined it.

Dickens, the clearest and most universal man of his age, divined this truth, for he makes little Oliver Twist, a child of impressible and amiable temperament, proof against all temptations; retaining his honesty and purity, not by any help of education or any outside influence, but among thieves and murderers, pure and honest by the simple instinct of a pure and honest nature.

Not more pitiful, I think, are the approaches of madness, than are the well understood symptoms which signify to the hereditary drunkard the hour of his inherited passion. I knew in Texas a young man who was heir to such a woe-ful heritage. He was physically one of the handsomest of men, and possessed of great and varied talents, which he had carefully cultivated. Moreover, he had served his country with distinguished bravery, and was then holding a high position of trust and honor. But with a

* Burton's Anatomy of Melancholy.

regularity that was terrible, there came to him—no matter where he was, over his ledger, in the church, by the side of the woman he loved—a craving for brandy that possessed him like a demon, and drove him forth from among his fellows. With set lips and despairing face, he would deliver to a friend the keys of his office and betake himself to his room—not as men go to a carousal, but as they go to meet a fearful reckoning—and for two or three days drink in sullen silence till the craving was appeased.

Some one was one day praising, in his presence, his vast stores of acquired information, and his delicate fancy as an artist. "Yet I shall die like a brute," he said, sadly; and the despairing look of a hunted animal came into his eyes as he added: "My father died drunk—my mother—God forgive her!—my grandfather shot himself in delirium tremens—you know, boys, how poor Patrick died—it will be the same with me." His prophecy was too soon fulfilled.

In such cases as these (and they are abundant), only an Infinite and Omniscient God can answer the question, "Who did sin? This man or his parents? for

"Who made the heart, 'tis He alone
Decidedly can try us;
He knows each chord, its various tone,
Each spring its various bias:
Then at the balance let's be mute—
We never can adjust it;
What's *done* we partly may compute,
But know not what's *recoiled*."

The history of the two Coleridges is well known. The father was a confirmed opium-eater; the son inherited with his splendid talents his insane craving for stimulants. With this curse haunting him, his beauty, his genius, his brilliant prospects, were the bitterest ironies, and a life of the grandest promise was soon sacrificed.

No two vices are more distinctly hereditary than thieving and gambling. Any one who has lived among negroes accepts this fact without dispute. I have known whole families of negroes thieves. I have, in employing them, had the fact simply stated to me as part of the transaction: "I reckon you'd better look out for your keys; she's a likely girl, but she comes

of a stealing family." [Other entire families are equally noted for their honesty, and this, too, for generation after generation.] Perhaps the passion for gambling becomes soonest of all universal. There are whole nations that are gamblers, who could not with equal justice be called thieves or drunkards.

Not only passions and vices, but *morbid conditions*, are transmissible by heritage. A young, listless, fretful bride, for instance, weakly encourages hysterical habits, or blind passionate impulses, without thinking that her hysteria may be reproduced in some form of imbecility, or even epilepsy. This, again, may become hereditary, or be transmitted as mania or melancholy; instances of both of which are within my own knowledge. Young people, sensible of any abnormal condition, should pay the most scrupulous attention to the laws of hygiene, peradventure the evil may go no further.

Suicide, without any mark of weak intellect, frequently becomes hereditary, induced too often by the careful nursing of nervous and hysterical affections, and groundless fears for a few generations. Oh! if parents would only search into this thing—would only read, that they might rightly understand the awful responsibility they incur, I am sure fewer wronged children would cry to heaven, "From our fathers cometh our misery."

But, though thoughtless, wicked parents should not be held innocent, nor go unpunished, yet their unfortunate offspring have no right to hide themselves behind their wrong. *It in no way lessens their responsibility before God.* Life to all is a warfare; to some, comparatively easy; to none, impossible. All may fight the good fight; and though to some the lists are terribly narrow, and there are foes without and traitors within, yet for all these things "the Captain of their salvation" is sufficient. "Faint, yet pursuing," let the weak and the tempted listen to His promise, and it shall stir their hearts like the trumpet of victory.

"Blessed is that man that endureth temptation; for when he is tried, he shall receive the Crown of Life."

CORSETS DISCUSSED AGAIN.

BY HOWARD GLYNDON.

GLANCING over the Fashion Gossip of a popular New York evening paper a short time since, I came across the following paragraph :

"It is to be regretted that New York ladies have seen fit to adopt the present vulgar fashion among certain women of Paris of discarding corsets. Whatever advantage to the appearance this fashion is supposed to give, it is none the less vulgar, and should not be tolerated."

I am aware that a severe word might be used in characterizing this paragraph, but I shall content myself with showing that it is lacking in good sense as well as in good taste. And I shall begin by copying another paragraph from another column of the same paper, which one might suppose had slipped in providentially for the express purpose of counteracting the effect of the one first given; but which, in reality, is from an excellent article, "Talks with Wives and Mothers," by *Eleanor Kirke*.

"A lady who had charge of a young ladies' Bible class, speaking of defective home-training, said that her best pupil, eighteen years of age, had caused her the most acute anxiety. Rain or shine, she was always at her post. The girl's whole soul seemed to be absorbed in the straightening out of intricate theological problems; 'and yet,' said the teacher, 'the girl was so pale and wan that I was afraid every Sabbath would be her last in class. One day she fainted, and, in trying to restore her, I loosened her dress, and what do you think I found? Corsets so tightly drawn that a full respiration was impossible. I removed them and found that the girl's ribs actually lapped! I took her to her mother, a very prominent and useful church member, and stated the case without reserve. 'Well, you see,' said the parent, 'Fanny never had any figure. I shouldn't be surprised if the lacings were drawn a little too tight. Her waist is naturally so large that it is almost impossible to make anything fit genteely on her. How is

your class prospering, Miss —? I hope you are drawing many souls to Christ?'"

I don't mean to make any comments on the above; but it is a fact that most young girls, if allowed to wear corsets, will, either through ignorance, carelessness, or vanity, draw the strings too tight. A great many young women do the same. It is not until bitter experience has made them wiser that they cease to do this. I don't believe I hazard much in saying that ninety invalids in every one hundred, among women, have either been made so, or have had their complaints aggravated by the wearing of corsets. A great many never own, and as many more never realize this; but it is nevertheless true. More than two-thirds of all female diseases are caused by corsets. Bad figures are made by them, and transmitted from mother to daughter. I am aware that their advocates maintain that they are injurious only when wrongly worn; but I say that there is no right way of wearing them, and this is why: Corsets are put on in the morning on first getting up, and while the stomach is empty; the strings are drawn to fit snugly about that empty stomach. Breakfast makes it tight; dinner makes it tighter; and I know there is not one woman in a thousand who is not glad to put that diabolical harness off at night.

There are a great many women who would rectify the mistake of the morning and loosen the detestable thing, but this involves an amount of exertion that they shrink from. One of the most fiendish of its characteristics is that it can't be loosened readily. It is clasped in front, but adjusted to the figure by strings which lace up behind. To loosen it, the collar, necktie, etc., must be disarranged, and the dress-waist entirely unfastened, so you can get at the strings; and it is probable that the dress will not fasten over the loosened corset, being made to fit snug. As to unfastening the clasps in front, it slips off if you do that. Such is

the philosophy of a corset! Such is the philosophy of women's clothes! Men have a little more sense. They know that sometimes their clothes are more comfortable if loosened; and again, that they like to feel them snug. They loosen them also to cool the body, and draw them close to warm it; and their outer garments are made so that this change can be effected with but little trouble and loss of time.

The temptation to lace the corset tight, in order to make a dress which is too small, meet in front, without the trouble of altering it "just a little," is too much for most women. From being constantly braced up artificially, the figure loses its natural pliability and firmness of outline. If Nature had calculated on a woman's wearing an armor of whalebone, she wouldn't have given her ribs. I don't know of any article of clothing so fatal to mental and bodily independence.

Seriously, and solemnly, I am compelled to call a corset an infernal machine. I know *one* literary woman who has made some reputation for herself in the last two years. Just two years ago she took off corsets. In the ten years preceding, she was trying to do something; but she has done more in these last two years than she did in all the other ten.

I heard yesterday that there was a corset loom at the American Institute Fair, which weaves several hundred corsets in a day; and I said to myself, "May God enlighten the women!" These hundreds of corsets will be the nucleuses of several hundred cases of dyspepsia, displacements, consumption, inflammations, and congestions among women; for the corset is the bitterest enemy of free circulation, not only from its tightness, but from its rigidity, and because it is nearly airtight. Some women want them to hang their clothing upon. This is absurd. There are plenty of dress-suspenders in the market. Pray, does a man need a corset to hang his clothing upon? Is there any law to prevent women making suspenders as available in their cases as they are in those of men?

I think it is my duty to dispute the re-

flections cast upon women who are trying to do without corsets, by the paragraph first copied. About two years ago attention began to be seriously drawn to this subject among some thoughtful women in this country—notably among those in New York. It is one of the things of which I am proudest, that I did a little towards helping on this reform. I wrote an article on "Corsets" at that time, which went, in part or entire, through the length and breadth of the land; and it came to my knowledge that a number of women had taken off corsets after reading it. I don't know anything about "certain women of Paris," from whom, the writer avers, the ladies of New York have borrowed their fashion of going without corsets. But whoever they are, they show sound sense in this one thing, at least, no matter what their motives may be. But it is not true that our women have borrowed the fashion from any other country; and the advantages to be gained in appearance are secondary among our motives for following it. I would just remind those squeamish people who consider it "vulgar" to go without corsets, that there are two ways of doing most things. That a woman may make herself look in bad taste without them, I grant; but if she knows how to dress herself properly, she will not do this; and my best defence is, that at this moment there are hundreds of respectable women going about quite guiltless of corsets, and nobody knows or has remarked any difference in their appearance—unless it be for the better—let alone anything "vulgar."

I know how extremely sensitive women—especially young women—are to the imputation of bad taste or vulgarity in dress; and I understand perfectly that such a paragraph as that which I have quoted, scribbled off carelessly, without a thought as to its consequences, by an irresponsible person in need of an item to fill out a column of fashionable platitudes, will have a greater effect on some women than all I can do or say to counteract its influence. It will be taken up and copied by other papers, and sent

floating on its evil mission all over the country; for these little items about dress and fashion are the ones most likely to catch the eye of the average woman when she takes up a newspaper. After reading it, many a woman, dreading to be considered unfashionable, or, worst of all, "vulgar," will again put on the corsets, which sound counsels and her own failing health had induced her to discard. And many a girl, under the tacit encouragement thus given, will draw her corset-strings still tighter, spite of cold feet and headaches. It isn't to the interest of any body but the makers and venders of corsets, and the patentees of corset looms, that women should wear them; but it is to the interest of every person else that woman should be just as hearty and healthy of body as possible. Men have said that they cannot be sure of carrying out any reform unless they can win the women to their side. Women are equally as sensitive to the opinion of men. Men, as a rule, don't stop to inquire into the hygienic significance of a woman's dress, and make a great many criticisms upon it without the least reflection. They are as inconsistent on this subject as they possibly can be. A great many of them are ready to growl if they see about a woman something they have not been used to see—for no other reason than that they are not used to seeing it. But I think that if most of them would only puzzle this matter out for themselves in their leisure moments, they would, when they found that freedom from corsets, and well-fitting clothing, whose weight is supported on the shoulders, tends to suppleness of body, elasticity and firmness of step, bright eyes, clear complexion, and cheerful tempers, never call these things "vulgar;" but throw their influence into the scale against corsets and help women to throw off their prejudices in favor of them.

Work and Sleep.

I have two friends, who are with me night and day,
True friends and constant, ever by my side;
Than mother more devoted, or young bride;
Yet when one comes, the other steals away;
For jealous friends will no joint vigil keep;
The one's pet name is work—the other's sleep.

THE SLEEPING BEAUTY.

DEATH OF THE WONDERFUL WOMAN.

We learn from the *Hickman Courier* that Miss Susan Caroline Godsey—known as the Sleeping Beauty—died at the residence of her mother, in Obion county, Tenn. She had attained the age of thirty-one years, and had been in her sleeping condition about 24 years.

It will be remembered that her case has excited much interest, and gave rise to much investigation and discussion among scientific men. The true nature of her affliction, however, was never understood, and will doubtless always remain a mystery.

She was brought to Nashville in the fall of 1867, for the ostensible purpose of procuring medical aid, but was really in charge of an agent who contemplated making an exhibition of her. She was accompanied by a brother, and other relations, who were very much attached to her. While they were in Nashville, they boarded at the house of Major Bruce, on Market street, and the sleeper was watched constantly by Mrs. Bruce, who took great interest in her. She remained under Mrs. Bruce's care eleven days. While there she was visited by a great many persons, and had with her one or more physicians all the time. She awakened every hour, night and day, at almost the same second each time, and remained awake from seven to ten minutes. Just after going to sleep each time, she had convulsions that shook the room, and at such times she appeared to be suffering great pain.

When asleep she was dead to everything, but when awake talked pleasantly and intellectually, sometimes complaining of pain, and exclaiming, "Oh, my head!" and when she awakened she invariably asked for water, but ate very little. She said she had no consciousness of ever having dreamed, and that it was no pleasure to live, afflicted as she was. She was very sensitive, and appeared mortified to think that she was being exhibited. Her affliction was inaugurated by a spell of chills. Some

medical men have attributed it to the medicine she then took; others, that the chills are precursory to her long sleeping state.

Upon leaving Nashville she went to St. Louis, and remained there a short time. It is said that the physicians there unanimously agreed that she was an imposition. She soon returned to the home of her mother, and has remained there ever since.

The Sleeping Beauty is said to have been a truly beautiful woman—not so emaciated, as one would think—and of a shapely form.

[*Comments.*—If we knew the history of the beautiful sleeper—her dietary, diseases, medicines, etc.—we could probably indicate precisely the cause of her malady. But, in the absence of such data, we can only reason on general principles. The immediate cause is probably congestion of the brain; the remote, torpidity of the liver. When these conditions first occurred they were slight, and easily overcome. The exciting causes were supplied, the congestion resulted again, which was again overcome by the efforts of nature; and thus a habit became established which, for want of proper hygienic management, continued until it destroyed her. We have known cataleptic patients remain torpid and unconscious for years, with the exception of a few hours once a month.]

ALCOHOL IN HOSPITALS.—If the declaration concerning alcohol, which was some time since issued by a great number of leading metropolitan and provincial medical men, is to exercise the influence which such a document ought to have, it is necessary that some attention should be given to the exceeding diversity of practice in this matter of the medical officers of public institutions. The managers of such institutions will find, on examining their balance-sheets, that the outlay on beer and spirits in some very largely exceeds the average which is found compatible with excellent curative results in others. Thus, according to some statistics recently prepared by Dr. Eastwood, of Darlington, and read before a meeting of the British Medical Association, at Birmingham, it appears that at St. Thomas's Hospital the patients are supplied with alcoholic liquors to the extent of 1s. 7½d.—[say 37 cents our money]—per head

weekly; at the Edinburgh Infirmary 8d.—[15 cts.;]—and at Birmingham only 6d.—[10 cents.] At the Newcastle Infirmary the expenditure has been diminished by £90—\$450—last year. The cost of liquor for the inmates of public lunatic asylums varies yet more greatly, from 1d. per head weekly at Lancaster, Dorset, Notts, and Warwick, to 7d. and 9½d. respectively at Leicester and Norwich. From the official reports, it cannot be found that the recoveries or the deaths bear any reference to these expenses. Among London workhouses, Whitechapel pays 2½d. weekly per head to keep its poor people in beer and spirits, while Camberwell pays 7½d., and Paddington pays 9d. Careful hospital and asylum authorities are aware that the supply of alcohol to patients is very often apt to vary with the individual opinions and habits of the medical officer. With the large amount of information as to averages now available, it ought, however, to be possible to check individual eccentricities and extravagance. A general inquiry into the subject by committee might be attended with advantage. At Cumberland Asylum beer is not allowed as an article of daily diet, and the patients, it is stated, appear as well off as those in other asylums.—*Pull Mall Gazette.*

[When a non-beer-drinking committee report on the question, it will be to the effect that—like drugs, etc.—“the less taken the better.” Of course, beer-drinking doctors will recommend beer to their patients; so of those who drink whisky, rum, gin, and brandy. Drop all your poisons, gentlemen, and come over to the only scientific and sensible way of putting patients in the way of recovery; hygienic principles. It will save money and life; why not try it?]

ERYSIPELAS—ST. ANTHONY'S FIRE.—Superficial inflammation of the skin; with general fever, tension, redness and swelling of the part, and an acrid, burning heat. The redness disappears on pressure. In some cases of erysipelas the fever is very mild, but in other forms it is extremely putrid and malignant, and liable to terminate in gangrene. There are no maladies in which mercurials are more freely prescribed, and do more extensive mischief than the malignant fever of erysipelas. As the head and face are ordinarily most violently affected, they must be kept cool by means of the constant application of cold, wet cloths, very frequently changed. When the external heat is considerable and uniform over the whole surface, the wet sheet pack, for an hour or more, should be employed daily. Otherwise the surface, wherever preternaturally hot, should be sponged frequently with tepid water. The bowels must be freely moved, unless diarrhoea attends, in which case fomentations should be applied to the abdomen for fifteen or twenty minutes, to be followed by the wet girdle. Water may be drunk at pleasure; but no food should be allowed until the violence of the fever has materially abated.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.



SEASONABLE DISHES.

BY JULIA COLMAN.

The Philosophy of Soups and Stews.—Broth or Soup Stock.—Vegetable Soup.—Lentil Soup.—Pea Soup.—Bean Soup.—Mutton Stew.—Onion Stew.—Peach Pie.—Peach Tarts.

BROTHS, soups and stews should not be confounded. A broth is simply the liquor left from boiling meat. A soup may be made of the broth by adding vegetables, grains, or seasonings; all or any of these in greater or less quantities. It may have more or less of these removed by straining, but still, a distinguishing feature of a soup is that it is made to be drank (with a spoon), rather than to be eaten.

A stew is a dish where the ingredients (usually two) are served in the liquor in which they are cooked, and this is all the dressing required. It is to be eaten with a fork, rather than with a spoon. Stews are not considered a stylish dish, but they are very economical, in the best use of the word, because they preserve all the nutrition of their ingredients, and because different nutritious articles are so combined as to season each other.

Stews have been greatly neglected. Cooks are prone to think that almost anything can be plumped into a stew, and that without much regard to harmony of flavors. This neglect, doubtless, comes partly from the fact that stews

cannot well be made to present a very elegant appearance. They do not serve well with other dishes, nor do they require a parade of dishes for their own especial use, as do soups. Stews serve several kinds of food in one dish, instead of spreading them out in a course over several dishes of various shapes and sizes, and letting the masticator mix them for himself.

But the common people, who do not care for display, like stews, and have liked them for centuries. Esau's pottage was, doubtless, a stew, and Esau himself must have been a cook of some eminence for those times.

Stews are not uncommon here in this country; but in Europe, and especially in France, they are the constant food of the peasantry and middle classes. Even Soyer tells plain people how to serve up the meats and vegetables of which they make their soup, so that all is saved, and he tells how the common people eat it all together as a stew.

That it is not the mixing of flavors that more pretentious people object to, we shall see by turning to their soup. Here the flavors are mixed without reserve, quite as much as if they had turned off the liquor from a stew, and, to my notion, it is not half so good; but, as soup is what the most of our people use, we will devote some special attention to that.

Looking into the real philosophy of the thing, soups seem to have been devised for the purpose of rousing up the stomach at the commencement of the meal with a smack of the good things coming. With this end in view, some of the meats and the vegetables, that are to be served with condiments, are plumped together into one pot, and so boiled as to extract as much as possible of the taste, and then a few spoonfuls of the liquor are poured down, by way of preface to the dinner.

But a still more curious fact is that the

meats and vegetables of which the soup is made, are thrown away, and then, in turn, the waters in which the meats and vegetables for dinner are cooked, are also thrown away. True, the two different processes are differently performed. In cooking meat for soup, it is put on in cold water and heated slowly, so that as much as possible of the albumen (a substance of the same nature as the white of an egg) may be dissolved into the water before it is coagulated. In cooking meat for its own sake, it is put into boiling water, which coagulates the albumen on the surface, and this, to some extent, prevents the escape of the juices of the meat. Still, it remains true that the water in which most meats are cooked would make a valuable addition to the soup stock.

But these two methods of treatment do not serve the same purposes with vegetables. Vegetable albumen, though essentially the same in most respects as that of animal origin, does not coagulate with heat like the latter. No small amount both of the flavor and the nutrition of many vegetables is left in the water in which they are cooked, and lost in the ordinary method of management. Water in which pared potatoes^{are} is cooked, though rich with starch, etc., goes into the waste pipe, while a few other potatoes are pared, and cut up and boiled in the soup for the sake of the very same elements which were thrown away in the potato water. Waters, also, in which onions and cabbage have been boiled are thrown away, with a shudder of disgust at their strong odor, while some of the very same cabbage and onions are boiled in the soup for the sake of their flavor, and then thrown away because they are not wanted. Shades of Ben Franklin! What would the great philosopher have said, could he but have guessed at the wastes of the kitchen, and the lack of the plainest common sense in the cook?

Even for those who do not throw away the vegetables from their soup, it would be a valuable addition to use in it more or less of the water in which the vegeta-

bles have been boiled. That which is saved from the vegetables one day might be put into the soup the next, adding whatever else might be desirable, and boiling them, after mixing, sufficiently long to make the soup homogeneous, adding the grain, which would need previous cooking.

Now I hope no one will call this *my* way of cooking. While I do think it quite an improvement on the ordinary way, there may be those among my readers who will remember that I prefer to have each dish enjoy its own fullness. I would so cook the vegetables that they would take up their own juices, or be served in them, while I would make soups so nutritious that they would be worth something for their own nutrition, besides for their flavor.

It is a very common notion that all the nutrition can be boiled out of food and then concentrated. You will be told that beef-tea is made thus, after the most approved fashion; all the strength of the meat being put into a very small compass, and then given to invalids, because of its superior nourishing qualities—and it must be so, for “the doctors recommend it.”

Do they? Well, the doctors have done things worse than that. There are quite a number of other mistakes of their making still open to rectification. The doctors must defer to the laws of science as well as other people, and science has been looking into this matter. It finds that a common day's ration of meat cannot be concentrated into a two-ounce package (thirty-two pounds to one is the rule), and, when wanted, expanded with water, and then afford ample nourishment. When the man comes to eat it, he finds that the nourishment is not there.

The fact is, that fibrous matter is indispensable to perfect nutrition. There must be bulk as well as richness. Soups and beef-tea and the juice of vegetables do not afford digestible food in anything like the quantities afforded by the original articles. As for the beef-tea, or extract of meat, it is believed to be little more than a stimulant, pleasant for its

flavor, but worthless or worse than worthless for food. I believe Mr. Liebig himself came to similar conclusions concerning his extract of meat, though I cannot now place my hand on the authority.

And what are meat soups but extracts of meat, so far as this is concerned? And what are vegetable soups but the water in which vegetables have been cooked, and usually rather thin at that?

Vegetables themselves have so little flavor that we usually add seasonings of some kind. So a dish of the water in which they are boiled would not be very promising. In truth, a common vegetable soup is of very little value, either in flavor or nutrition—a “soup maigre,” sure enough. It should have all the vegetables left in, and then be thickened with some kind of grain, after all of which most people would want the meat juice to flavor it.

I am not running down soups. I am only looking into them, and I find very little there, and that little not in the best form for common use. The popular notion is that what nourishment they do contain is in a form very easily assimilated; I believe it is thought sometimes to run right into the blood. But nothing can be further from the truth. It must be digested like everything else, and, so far from being better prepared for that process than more solid food, it requires an additional effort of the stomach.

The superfluous moisture must be absorbed and the entire mass reduced to the consistency usually assumed by solid food after mastication and insalivation. Indeed, Dr. Beaumont, who watched the process in the stomach of St. Martin, observed that the soup became somewhat the thicker of the two. This process involves the loss of time, the expenditure of vitality, and the risk of introducing more fluids than the system requires.

Still, soup has its uses. It fills the stomach quickly, and thus satisfies the craving of hunger more readily than solid food. The water it contains answers the purpose of drink, and is therefore refreshing.

It is also alleged that the flavor answers a good purpose by waking up and setting to work the digestive apparatus; but I doubt the need of any such stimulus. If it is not ready to work without this provocation, it would better wait a while. Hunger is the best sauce, hygienically as well as epicureally.

I think it probable that in a perfect dietary soups would be dismissed entirely, but we have hardly gone so far as that yet. It appears to me that they could first be improved, and made to answer some good purposes. The best soups are made thick and nutritious with seeds and grains, such as peas, beans, green corn, pearl barley, and anything else that is rich and good enough to bear the dilution. There are, however, very few such articles, and of the above, split peas, and, perhaps, green corn and pearl barley, are the only ones that would bear frequent repetition.

One of the important hygienic objections to soup is that it usually goes down without proper mastication. This can be prevented by eating it with crackers, hard bread, or something similar. This will often, with those who live plainly, afford the main part of a comfortable meal.

Of the good offices which we hope to make soups perform, in taking the place of tea and coffee, we shall discourse further when we come to consider the desirableness of dispensing with these drinks.

In the meantime, we shall give some recipes for various kinds of soups not already given, with other recipes not unseasonable. If we can thus help our readers to add to the pleasures and the graces of a diet increasingly wholesome, we shall feel that we are not without our reward.

RECIPES.

BROTH, OR SOUP STOCK.—Where meat soup is an every-day requisite, the soup-pot should remain on the fire all the day. In the morning it should receive the requisite amount of cold water, and be placed where it will be warm, but not boiling hot. Into this should be thrown what pieces of meat are intended for the soup,

the trimmings of the morning's chops and steaks, the clean pieces that are left from the table, and in the same way the bones, trimmings, and remnants of the dinner meats, either before or after cooking. From these should be trimmed all the bits of fat and bloody streaks. After all these are in, the pot may be set where it will heat and boil, or rather simmer, very gently all the afternoon, draining off the broth the last thing at night and setting it away to cool. In the morning take off the cold fat from the surface, and the broth, or "stock," is ready for whatever kind of soup you propose to make.

The kinds of meat used will depend on the taste; some putting in all kinds, others excluding all salted and smoked meats, while others still prefer certain meats by themselves.

Stock intended for soup sometimes has the flavoring vegetables cooked in it, and then drained out with the meats. Stock is often kept on hand and used for gravies, as well as for soups. Of course, there can be no rule given very well for its strength; that must be regulated with more or less water to taste.

PARSLEY is one of the vegetables most commonly used for seasoning soups of all kinds. It should be fresh, crisp, and well washed. Just as the soup is done, take a few of the leaves between the thumb and fingers of the left hand, hold them tightly, and with a sharp knife shave down the parsley in quarter-inch lengths, and throw at once into the soup in quantity to suit.

VEGETABLE SOUP.—This is so called because it contains vegetables, and not because it is made with them only. Cabbage and onion add greatly to its richness and flavor, and may be used in the proportions of one half-pint each of chopped cabbage and onion, to two quarts of soup. To this may be added one half-pint of chopped potato, the other vegetables depending on the character of the soup desired. If for tomato soup, add half a pint of canned tomatoes, in which case the soup should be made in a porcelain-lined kettle. Boil all these in the stock for one hour at least, then season with thyme or chopped celery, and boil another half-hour. So other vegetables may be used if harmonized. Parsnips should not be used with turnips, nor with celery. A soup should not be a *mélange* of all flavors, for all flavors do not harmonize. In fact, there is room for the exercise of much more taste and delicacy than are usually expended on the task. Thicken with rice or pearl barley or groats, and a little wheat meal, and not with the vegetables. If these

are not wanted, they should be strained out before putting in the grains, which, in any case, should be cooked separately till near the last. A "clear" soup should have neither grains nor vegetables left in.

LENTIL SOUP.—The lentil is the seed of a vine belonging to the Leguminosæ. It resembles a flat green pea in color and shape and taste. It is quite eatable when boiled and seasoned like beans, but its principal use is for thickening soups, especially by the Germans. In making a lentil soup, the grains should be stewed gently in pure water four hours, or until they mash readily, using a pint for two quarts of soup. Rub through a colander or coarse sieve, return to the fire, salt, and, if wished thicker, rub some wheat meal in water, and add to the taste.



LENTIL.

Wheat meal (Graham flour) is much richer and better for thickening soups than white flour, corn starch, or any of those imperfect substances. Cook it, after the meal is added, from five to ten minutes, being careful not to let it burn. Simmering is quite as effective as fierce boiling.

PEA SOUP.—For four quarts of soup, take one pint of split peas. Boil gently in two quarts of water from two to four hours, or until they fall to pieces and can readily be put through a colander. After straining, add water enough to make four quarts of soup, return to the fire until it boils, then thicken with one half-pint of wheat meal rubbed in water, boil five minutes, salt, and serve hot. Eat with Graham crackers or oatmeal cracknels. Season with butter, milk, or cream, if desired. Try it without first. The white marrowfat is the pea used, and is just as good without splitting, if strained according to the above recipe. The soup will be nearly cream color. The blue pea also makes a good soup, but not equal to the white marrowfat—color, greenish.

BEAN SOUP.—The above recipe answers exactly for bean soup, only requiring nearly double the proportion of beans.

MUTTON STEW.—Take two pounds of mutton, with the fat nearly all trimmed off. Put into warm water and let it boil three-fourths of an hour. Then add one pint of sliced white turnips and one quart of potatoes, putting them in according to their size, etc., so that they will be done at the same time. Have them barely covered with hot water.

When the potatoes boil, cover the surface with bits of scalded meal dough as large as a walnut. (See *SCIENCE OF HEALTH* for June, 1873.) As soon as the potatoes are done, lift with a skimmer into a hot vegetable dish. If there is not liquor enough to sauce the dish to your liking, add more water. If it is not thick enough, cook in wetted wheat meal, pour over the dish, and serve hot. The time for cooking the mutton must depend on its age and the size and shape of the piece. The potatoes are to be taken up when done, whether the other articles are done or not. If the latter must cook longer, the potatoes can be kept hot and wait for them better out of the water than in it. Neglect of this is one cause of poor, watery stews. For soups, the potatoes may be cooked quite to pieces; but if they are to be eaten as potatoes, even in a stew, they should not be watery.

ONION STEW.—Cook one pint of onions three-fourths of an hour (or more, if large), then put in one quart of potatoes, and, when boiling, cover the surface with scalded wheat-meal dough. Lift when the potatoes are done, and add to the liquid one half pint of cooked rice, and cook ten minutes. Then pour it over the other ingredients, mix slightly together, and serve hot.

The above two recipes may serve very well as specimens of meat and vegetable stews. They may be varied largely, but care must be taken to have one leading flavor, and nothing else but what harmonizes with it. In the mutton stew pieces of bread may be substituted for the wheat-meal dough, giving it barely time to soften through, and it may be thickened with rice or pearl barley, etc. Apples may be introduced into either of the above stews. Parsnips may be substituted for onions in the latter, and so on through many variations.

Recipes for soups and stews were given in *SCIENCE OF HEALTH* for March, April, and July, 1873.

PEACH PIE.—Make a crust with oat-meal, unshortened (scalded with boiling water), or with white-flour wheat meal and Indian meal in equal proportions. Then, in the juice of canned peaches stew a few grapes, and drain them through a colander. Fill the pies with the canned peaches, pour over them the mixed juice, sweeten to the taste, and bake as usual.

PEACH TARTS.—Take stewed grapes (those that have been drained from their juice for making pies will answer), rub them through a colander, mingle with them some of the peach juice, fill the

mixture even full with very fine bread crumbs (of wheat-meal bread or biscuit), line patty pans with crust, put in each a spoonful of the mixture, and half a peach, stoned side up, fill the cavity of the peach with the mixture, and bake twenty minutes.

IMPROVED LIQUID GLUE.—An improved liquid glue, according to the *Journal of Applied Chemistry*, may be prepared by dissolving three parts of glue, broken into small pieces, in twelve to fifteen parts of saccharate of lime. On warming, the glue dissolves rapidly, and remains liquid when cold, without losing its strength. Any desirable consistency may be secured by varying the amount of saccharate of lime. The thicker glue keeps its muddy color, the thin becomes clear, on standing. The saccharate of lime is prepared by taking one part of loaf-sugar and dissolving it in three parts of water, adding to the sugar one-fourth part of its weight of slacked lime, and heating the whole to 145° or 165°, and allowing it to macerate for several days, with frequent shaking. The greater part of the lime will be thus dissolved, and the solution may be decanted from the lime sediment, which has the properties of muclage. The solution of the glue in the saccharate of lime may be made very readily, and even old gelatine, which has become insoluble in water, will be easily dissolved. The glue has great adhesiveness, and admits of very many uses.

POISON OF THE OLEANDER.—The oleander, so popular as a house and yard plant, is extremely poisonous. Dr. T. L. Wright, in a communication to the *Bellefontaine Republican*, says that he was called to attend a child a few days ago, who had eaten some small fragments of an oleander bush that had been clipped off. The symptoms were sudden and violent, and the result nearly fatal. Deathly prostration, sunken eyes, great pallor, incessant vomiting, extreme thirst and purging, were the predominating symptoms.

An old medical work quoted by the doctor, after describing the poisonous qualities of the plant, adds: "When handled in a close room, when the stomach is empty, causes a numbness, coming by degrees, which shows that something poisonous belongs even to the smell." The United States Dispensary mentions the fact that it is used by the French peasantry as a poison, and that while the deadly principle exists both in the leaves and bark, it is more active in the latter.

A PIECE of red pepper, the size of your finger-nail, put into meat or vegetables when first beginning to cook, will aid greatly in killing the unpleasant odor arising therefrom. Remember this for boiled cabbage, green beans, onions, chickens, mutton, etc.

CLEANSING BLANKETS.—"The Housewife," in *To-Day*, discourses in this wise:

"It is quite as important to have the blankets on our beds clean, as to have the sheets pure and white. The foul emanation which they absorb in time, make the bed anything but sweet. The *Boston Journal of Chemistry* gives the following method of cleansing blankets: 'Put two large tablespoonfuls of borax and a pint of soft-soap, into a tub of cold water. When dissolved, put in a pair of blankets, and let them remain over night. Next day rub and drain them out, and rinse thoroughly in two waters, and hang to dry. Do not wring them.' But this is not the only domestic use to which borax may be put. Says the same journal: 'Borax is the best cockroach exterminator yet discovered. This troublesome insect has a peculiar aversion to it, and will never return where it has once been scattered. As the salt is perfectly harmless to human beings, it is much to be preferred for this purpose to the poisonous substances commonly used. Borax is also valuable for laundry use. To about ten gallons of boiling water add a handful of borax, and you need use only half the ordinary allowance of soap. For laces, cambrics, etc., use an extra quality of this powder. It will not injure the texture of the cloth in the least. For cleansing the hair nothing is better than a solution of borax-water. Wash afterward with pure water, if it leaves the hair too stiff. Borax dissolved in water is also an excellent dentrifice or tooth-wash.'"

TABLE-TALK—You will find a great deal of character is imparted and received at the table. Parents too often forget this; and, therefore, instead of swallowing your food in sullen silence, instead of brooding over your business, instead of severely talking about others, let the conversation at the table be genial, kind, social, and cheering. Don't bring disagreeable things to the table in your conversation, any more than you would in your dishes. For this reason, too, the more good company you have at your table, the better for your children. Every conversation with company at your table is an educator of the family. Hence, the intelligence and the refinement and the appropriate behaviour of a family which is given to hospitality. Never feel that intelligent visitors can be anything but a blessing to you and yours. How few have fully gotten hold of the fact that company and conversation at the table are no small part of education?

TEA ADULTERATION.—The *North British Daily Mail* has published analyses of thirty-five samples of tea bought in different parts of Glasgow. Out of the thirty-five samples analyzed—twenty-seven of which were of black and eight of green tea—only six were unadulterated. All were high-priced, and none of the six was a sample of green tea. One sample contained no tea at all, so far as the analyst could discover. The adulter-

ants which were used in this and the other twenty-eight cases, were iron, plumbago, chalk, china clay, sand, Prussian blue, turmeric, indigo, starch, gypsum, catechu gum, and leaves of various kinds, elm, oak, willow, poplar, elder, beech, hawthorn and sloe. It is but justice to the retail vendors to state, that the adulteration is not supposed to be their work; it is largely done in China, and is further carried on after the "tea" has reached Britain.

A NEW WAY OF OBTAINING FLOUR.—A revolution is likely soon to take place in the process of flour-making. It has just been started in England. The grain is crushed by numerous little trip-hammers, attached to the proper machinery to produce the result desired. The new machinery is very cheap, and does up its work in a thorough manner. The flour produced is said to be far superior to that obtained by grinding. A pounding-mill, costing \$1,000, will produce as much flour every day as an old-fashioned mill, costing \$5,000. The new mill is very simple. When a hammer is out of order, it can be replaced for a few cents. For four thousand years millers have produced flour by grinding the grain with stones. The new idea gives a new departure. What results it will soon produce in this country remain to be seen.—*Industrial Monthly*.

CÛRE FOR SHEEP-CHASING DOGS.—Many people will assent heartily to the principle that the best possible cure for a sheep-chasing dog, is to kill him at the earliest practicable moment; but there may be exceptional cases. A correspondent of the *London Field* seems to think so at least, and relates an instance where, after other attempts had failed, a fine Newfoundland dog was cured by tying him to two old Scotch rams, and left to such amusement as he could extract from their society. The result was an extensive ramble over hill and dale, hedges and ditches, and diversified, of course, by the discordant views each ram and the dog entertained as to the route for enjoying the best scenery. When all three were very tired, they were loosed, and nothing thereafter was so extremely offensive to that dog's tastes as the society of sheep.

WORMS IN FLOWER-POTS.—Many ladies are puzzled how to get rid of the detestable worms that will infest the earth in their flower-pots. The following recipe, which we find in an exchange, is recommended to destroy the pests: "Put an ounce of ammonia into one gallon of warm water, and water the plants with it once a week; they will be free from these worms, and be beautiful and green. To kill the little bugs that get on the oleander, take a piece of lime the size of a hen's egg, and dissolve it in about two quarts of water, and wash the stock and branches of the tree; they will disappear."

CLEANING JARS.—This can be done without scraping them, by pouring in the jars hot water and a teaspoonful or two of pearl-ash. The contents which remain sticking to the sides and bottom of the jar will be disengaged by the pearl-ash, and float loose in the water. Wash bottles the same way, or kettles, or any other vessels which you wish to purify or clear from grease. Strong lye, poured off clear from good hickory ashes, will answer nearly as well for the same purpose, and for kegs, buckets, and large cooking utensils, lye from good ashes may always be used.

TO KEEP FLOWERS BLOOMING.—All lovers of flowers should remember that one blossom allowed to mature or "go to seed," injures the plant more than a dozen new buds. Cut your flowers, all of them, before they fade. Adorn your rooms with them, put them on your tables; send bouquets to your friends who have no flowers, or exchange favors with those who have. All roses, after they have ceased blooming, should be cut back, that the strength of the root may go to forming new roots for next year, and on these bushes not a seed should be allowed to mature.

BAKED POTATOES.—Potatoes are more nutritious baked than they are in any other manner, and they relish better with those who have not been accustomed to eat them without seasoning. Wash them clean, but do not soak them. Bake them as quickly as possible, without burning in the least. As soon as they are done, press each potato in a cloth so as to crack the skin and allow the steam to escape. If this is omitted, the

best potatoes will not be mealy. They should be brought immediately to the table.

WOODEN WATER-PIPE.—For the conveying of water from springs, wells, rivulets, for the use of stock, culinary purposes, irrigation, and in fact, for any and every purpose, when a small supply is required, wooden pipe or tubing is cheaper than either lead, tin or iron; does not corrode by use, and the water is not impregnated with a deadly poison, as in the case of lead. If water continues passing through the tubing, it will last a generation.

HOUSE PLANTS.—In sprinkling, avoid wetting the flowers. Should the plants get frozen, remove them to some place where the thawing will be gradual.

TO RESTORE COLOR TO FABRICS.—When color on a fabric has been accidentally or otherwise destroyed by acid, ammonia is applied to neutralize the same, after which an application of chloroform will, in almost all cases, restore the original color. The application of ammonia is common, but that of chloroform is little known. Chloroform will also remove paint from a garment or elsewhere, when benzole or bisulphide of carbon fails.

IRON MOULD IN LINEN.—Wash the spots in a strong solution of cream of tartar and water. Repeat, if necessary, and dry in the sun. Another method: Rub the spots with a little powdered oxalic acid or salts of lemon and warm water. Let it remain a few minutes, and then rinse well in clean water.

PACIFIC DEPARTMENT.

C. F. YOUNG, M. D., Corresponding Editor.

THE GLAD NEW YEAR!

WITH November rains, we of the coast country begin to feel the quickening of earth's vital forces. The smoke and dust all washed out of the atmosphere, springs and tiny streams, freighted to their largest capacity, sing merry songs to the miners. They sing of gold-dust soon to be separated from the placer and blue-gravel beds. They sing of store-bills paid and outfits renewed. To many patient, waiting workers they sing of the possibility of bringing dear ones to pre-side over the future of cabins in the wild wood, or on the margin of lakes, and hid

away in the foot-hills. June roses are beginning to swing fragrant clusters by porch-doors, and garden-gates, half the length of the golden State. The white bells of the glossy-leaved manzinetta toss honey-sweet invitations to bees and humming-birds.

On sunshiny days, doors are open, and the free, joyous out-door life begins. The children rollick on the lawn or grassy hill-sides. Lambs and kids, and chickens, from day-dawn until sunset, invite our children into the sunshine and pure air of the hills and plains.

Houses in the country are of little use,

excepting for beds and meals and ward-
robes.

When people shall learn to remember that in this genial climate grains, and fruits, and vegetables are better for food than fat meats and fine-flour bread—that water and milk are better to drink than coffee and tea—we shall send the doctors to cultivate an acquaintance with hoe-handles and reaping machines.

Pill-boxes and patent-medicine pedlers are as great a curse here as in the older States—perhaps more so.

Our houses are smaller—more beds in a room. The three-meals-a-day habit of the people clings to them. Fine and concentrated, oily articles of food, taken three times a day, cannot be disposed of as rapidly as in colder climates; hence the long train of ills and ails coming to dyspeptics and bilious people.

Giddiness, heart-disturbance, headaches, sick-headaches, side-aches, flatulence, heart-burn, rheumatisms, fevers, all the result of too frequent and

TOO MUCH FOOD.

taking, are as common here as in the southwestern States.

The habit of "taking something" hot, or strong, or bitter, on the first painful symptoms of sickness, is almost universal. The miserable compounds, from the wine-cellar or the drug-store, injure the stomach, stimulate appetite, and invite new forms of disease; in thousands of cases, lead directly to premature death. Temperance in all things, and total abstinence from many, must be taught by precept and example.

The light is coming—day-dawn is near.

Little by little the people are learning that this Scripture, "Whatsoever ye do, whether ye eat or drink, do all to the glory of God," is a commandment as binding in its obligation as the commandments of the old law. The penalty of disobedience is sickness and pain—a clouded spiritual vision and death by inches. Intelligent, careful obedience always has, always will, bring its reward of cool brain, clear judgment, a lively conscience, and tender heart.

If writers and readers are diligent, the long months of this new year will see thousands of people turning from the old errors of ignorance to welcome the beautiful truths taught in this and kindred journals.

When appetites, born of stimulating food and drinks, are fairly conquered, the paths that lead to a rosy, healthful life are very pleasant.

To win this victory, our breakfast and dinner tables must be furnished with reference to the command, "Do thyself no harm." Religion and principle must become a controlling power in every-day life.

Breathing foul air, night or day, in churches or sleeping-rooms, is as certainly a violation of the divinely-appointed health laws, as theft is of the moral law. Enlightened conscience, prompted by an earnest desire to do right, must direct all matters of work, and dress, and rest, and play.

To this end teachers are needed in every county and town in the United States. Verily, the harvest is great; the laborers are few. The crisp, frosty days of the Northern and Eastern States ought to quicken every pulse, invigorate every person, both physically and mentally.

The respite from work, and the leisure of winter evenings, should give abundant time for mirth, and music, and the reading of health journals.

From our winter of buds and blossoms, we sometimes wish for a day of snowballs and icy skating-ponds. From the shadow of waving palm-trees and orange orchards, bending under golden fruit, we remember the friends who sing and shout to the music of sleigh-bells and prancing feet. To all—long life and happy, glad new years!

INFANT MORTALITY.—It is estimated that over 40,000 children under one year of age, die annually in England (including Scotland and Ireland) of diseases produced by improper diet, given them through mistake or through ignorance, and of only two diseases, convulsions and diarrhoea. Besides these, many other complaints, sometimes fatal, are produced by improper feeding.—*Golden Words.*



MONTHLY,
\$2.00 year.

NEW YORK, JANUARY, 1874.

[SINGLE No.
20 cents.]

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

EIGHTEEN HUNDRED AND SEVENTY-FOUR.

"ALL ABOARD!" In mid-ocean, on a first voyage across the deep, when the ship is new, the sea tempestuous, the winds changeable, and the points of compass uncertain, how cheering the music of the watchman's cry, as it rings through the midnight air, "All's well!" The SCIENCE OF HEALTH once more proffers its patrons the greetings of a NEW YEAR; and although financial embarrassments and rumors of war render the season temporarily dark and troublesome, we seem to hear its guardian genius, glorious Hygeia, proclaiming, as with the voices of the thunders, "ALL WILL BE WELL!"

Our country is rich and prosperous. It abounds in all the elements of progress and happiness. It has enough and to spare. But its business is deranged; confidence is lost; balances are struggling for the mastery; currency is hoarded, and millionaires and paupers are on a financial lead. This perturbation of the times, however, cannot last. Settlements will somehow be made, and things move along in the accustomed channels. Indeed, the worst is already over, and

everywhere we see the signs of returning prosperity.

But, come what will, the people must have HEALTH. Hard times may be endured, but sick persons must be cured. Nay, more. They must learn to keep well. Hence the SCIENCE OF HEALTH must go on.

During the year and a half of its existence, our journal has made a record we are not ashamed of. It has carried the good news of a better way to many thousands of homes. In circulation it has distanced all of its contemporaries; and in influence no publication on the earth is more purely utilitarian.

Anticipating a year of general enterprise and success in business affairs, to succeed the present temporary depression, we have made preparations to prosecute the work of making the people healthy with additional energy during the year 1874. We mean business. We have secured all the contributors now so favorably known to our readers, and enlisted some new ones. And we have only to add that we have facilities for printing and mailing a very large edition. Let our friends send in their subscriptions for another "trip around the world," singly, or in tens, or hundreds, or thousands. They will find our corps of workers equal to the emergency.

THE ECONOMY OF HEALTH.

WERE we to assert that the amount of money that could be saved in our country in one year, by adopting Hygienic modes of living on the part of all the people, would be sufficient to pay our national debt, the statement would doubtless seem very extravagant to many. Yet it is within the boundaries of truth. The waste and loss consequent on the use of intoxicating liquors covers one half of the amount. Then the article of tobacco adds some hundreds of millions of dollars more to the sum; add to these a few noxious things and superfluities, tea, coffee, condiments, salted meats, lard, butter, cheese, etc., and the whole amount of our national debt is cyphered up.

To illustrate this subject a little further, let us refer to our transatlantic cousins. An English paper states that the people of Great Britain expended in 1872 more than two hundred millions of dollars for tea, coffee, sugar, and cocoa, and three times that sum—\$600,000,000—for intoxicating liquors. A few items, that we could easily add, would swell the sum to more than one thousand millions of dollars, either uselessly expended or worse than wasted. Britain's tobacco bill is hundreds of millions.

It is perfectly certain that, if all the people of the United States and Great Britain were Hygienists, in the strict sense of the term, the national standards of health would be much higher, and the saving in money not less than three thousand millions of dollars annually. Can any one conceive the amount of hard toil necessary to earn and waste this enormous sum every year?

MIXING THINGS.

A CERTAIN doctor in Arkansas issues a handbill, describing his business and himself as a dealer in drugs and medicines, and in other things as follows:

Paints, oils, dye-stuffs, wines and liquors, looking-glasses, poppy, fish and coal oils, indigo, vitriol, and family dyes, brandies, bourbon whiskey, gin, rum, bitters, cordials, and "wines for sacramental purposes," including perfumery of all kinds; also cow-bells, rifles and shot-guns; winding up these enumerations with "a large stock of metallic coffins, at prices from \$15 to \$150. The same gentleman issues a ballot announcing himself for mayor of the town in which he resides. But this is out West, in the new and rising State of Arkansas, where it may be nothing new in the present state of affairs to mix things in this interesting manner. Think of it! "All the popular pills and mixtures for all classes of diseases, including patent medicines, liquors, and tobacco;" winding up most appropriately with a large stock of plain and fancy coffins!

WHERE TO WINTER.

ROBUST Northerners, Easterners, Westerners, and Southerners may remain where they are, and go through a changing season "all right." But invalids, tender and sensitive to the cold and freezing weather, may change climates and other conditions to their advantage. We have in the Northern States many excellent hygienic homes, with all the comforts possible, so far as warmth, diet, and facilities for exercise are concerned, where the best treatment is afforded. For a list of these, see "Directory Cards" in our advertising department. As to "which is best," each must judge for himself. By corresponding, securing descriptive circulars giving terms, etc., one may learn all he wishes to know. We simply point to the cards. For those in the far North and East—say in New England, Nova Scotia, New Brunswick, and the Canadas, where the weather is bleak and trying, there is no doubt that the softer and more southern climates would

be an improvement to the invalid. A removal for a short distance at first, say from Vermont to Virginia, would be well. We would not advise that one go from snowy New England or Canada to the tropics, unless he should go by slow stages, stopping a few weeks at a time by the way. If one in the Middle States desires to make a change, he may go to the Carolinas to winter, or still further south, if he prefer. There are in Alabama, Louisiana, Florida, and Texas, many charming resorts, where one may live out of doors most of the time; where he may ride, fish, hunt, and knock about in the open air, and the processes of recuperation will all go on at the same time. It is to be regretted, however, that there are so few strictly hygienic homes in the South, to which thousands in the North and East would be glad to resort during the fall, winter, and spring. The best accommodations now afforded are the ordinary hotels; while in the cities, boarding-houses may be found where the quarters would be comfortable, but the living seldom hygienic. At Aiken, S. C., at Jacksonville, St. Augustine, and Fernandina, Fla., at Richmond, Va., at Wheeling, Staunton, Charlotte, W. Va., at Savannah, Atlanta, Augusta, Ga., at Wilmington, N. C., Charleston, S. C., Mobile, Montgomery, Selma, and Huntsville, Ala., there are popular winter resorts; so also in Louisiana, within easy reach of New Orleans. Texas is just across the line, and with the cities of Galveston, Houston, Austin, etc., all in railway connection, ordinary comforts and luxuries may be obtained. Cuba, Jamaica, Hayti, and other neighboring islands, are also favorably situated for winter quarters. At present, however, there is a state of "unpleasantness" which will prevent strangers from visiting those delightful places, except in ships of war. We look for a change of administration ere long, which will place

those islands under such government as will probably be compatible with democratic republican institutions. Then, like wild geese, we shall flock thither in winter, though we will go North and West to the mountains in summer.

For those who have time and means, we would name, in this connection, our own delightful Southern California. Here will be found all the conditions for health, comfort, and enjoyment, which one would think necessary. There are fruits in abundance of the most delicious kind; while air, water, scenery, etc., are unsurpassed.

One may leave Montreal, Boston, or New York, and in twenty-four hours he may be nearly a thousand miles away south, at the place where he would be, and in nine cases out of ten the railway ride, or the voyage at sea, will prove remedial to him, if an invalid. Those who prefer, may go by water. In this case, there are fine steamers plying between the ports of the North and South, which afford all the necessary facilities. A sea voyage may make one sea-sick, and very uncomfortable, but the marine malady is not dangerous. We repeat, that those who are robust, and in perfect health, will not need a change of quarters, food, or climates. But there are many who have large brains, with overactive minds, and too little body or blood to keep them warm in a cold climate, and who are not too feeble to be moved. Such should go South to winter. We do not advise a general stampede, nor a breaking up of happy homes without good cause; but we are confident that out-door life in the South during our long, tedious winters, would be favorable to those in delicate health. Could one go, as before suggested, by slow stages, stopping a few weeks on the route, as, for example, at Philadelphia, Baltimore, Washington, Richmond, Charleston, Savannah, fetching up in Mobile, New Or-

leans, or Galveston, and then moving North in the spring, say up the Mississippi, stopping at Natchez, Vicksburg, Memphis, St. Louis, etc., he would find the tour most enjoyable and health-giving. Southern invalids find it healthful in our more invigorating Northern climate, especially during the fall, spring, and summer, while our icy winters would be of course very trying to one accustomed to a Southern climate.

We are confident that when it is generally understood that our vast Southern and Western plains and mountains are open to settlement, many Northerners will seek homes therein. Take Southern Colorado, for example, all of Texas, a good part of New Mexico, the most of California, etc., and they will be found not only health-giving, but more real enjoyment will be had than in the more frigid North. It will do our invalids good to travel. Let them go South and Southwest to winter.

HEALTH OF WOMEN.

WE have been called a nation of invalids. Why? Is there any thing in our stock, our climate, or in our modes of life incompatible with good health and long life? Here is a paragraph from the New York *Tribune*, which demands attention. It says:

"We fear that a great many women, and especially young women, are just now injuring their health, bodily and mental, by ill-directed and too persistent study. The turn of modern speculation has rendered them inordinately ambitious, and too much importance has been and still is attached to mere scholarship. The *Rondout* newspaper mentions that the young lady who attempted lately to commit suicide by drowning, near Coxsackie, had been rendered insane by severe application to books, her worst fault being "an intense desire for knowledge." Alas! she should have known that a knowledge of the laws of life is worth all the Greek,

Latin, and mathematics in the world; and if matters go on as they have been going for some time, we are afraid that half of the women of the next generation will suffer for it."

There is an *inordinate* desire for knowledge, as there is for money, for fame; and as there is inordinate affection, for which we pray, "Good Lord, deliver us." These inordinate desires are encouraged in children by inconsiderate parents and teachers.

No thought is taken of the body; *that* may be taxed, jaded, squeezed, and crucified, and all for the love of "show." "Hear me recite a long string of verses!" "Look at my new dress!" "Observe my slender figure!" Who ever heard a fashionable young lady congratulate herself on a robust condition of health? Does she not rather pride herself on her frail, fragile, delicate, and helpless condition? Oh, the silly creatures! It is no wonder that they go crazy. Of what use are they in the world? Who marries one of these, secures at least *one* patient for a hospital at home.

Now this is all wrong. One may secure a good education and retain health at the same time. Those who live in accordance with the teachings of THE SCIENCE OF HEALTH, will develop both body and brain in healthful harmony. They will become intelligent, healthy, and helpful wives and mothers—will *elevate* the race.

A SAD EXPERIENCE.—How many lives furnish parallels to the experience that finds its sad expression in these homely lines: "Her long sickness was a deal of expense to him; he mortgaged the farm to pay the doctors, an' they never did her no kind o' good." "They never did her no kind of good," but he had to pay the doctors' bills just the same.

[How many grown-up men and women are there to-day, in this country, who can say that their bodies as well as their pockets have not been made worse by poisonous drugs? Who can declare himself made better, for their use?]

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

FEVER AND AGUE.—"So great a number of remedies are recommended for this disease, that 'sad experience' seems to be the only reliable teacher. Please tell me, if you can, what I should do to get rid of it."

Give the patient a tepid ablution during the hot stage; keep him quiet; let the dietary be simple and abstemious.

BAD ODORS.—J. M.—"Are the foetid odors which assail our olfactories in the presence of some persons, to be attributed in any degree to natural idiosyncracies, nationality, color, or anything else beyond their control, or solely to unhealthful conditions, as bad food, want of cleanliness, etc.?"

Unhealthful conditions. Persons who are clean and well, no matter what their color or nationality, are free from bad odors. It is the foetid, oily substance exuding from the skin, which becomes foetid, that causes bad smells.

TYPES OF YELLOW FEVER.—R. M.—"We sometimes hear of yellow fever of a virulent type. Again, we hear of the same disease of a mild type, yielding readily to treatment. I would like to inquire, through *THE SCIENCE OF HEALTH*, is this difference attributable to the mildness or virulence of the contagion to which the individual has been exposed, or to the condition of the patient, and the treatment to which he is subjected?"

It depends on the condition of the patient and quantity of contagion.

A THIN SKIN.—R. A.—"Is there anything that will toughen the skin on the hands? The least little knock will peel the skin from mine, which keeps them constantly sore."

Exercise, cold water, followed by friction—rubbing—and an equable temperature, are the remedies.

A RINGING IN THE EARS.—E. B.—"I have had noises in the ears from about the 7th of June last (nearly five months). I applied to two doctors, who gave me pills, powders, etc. [of course], for some twelve weeks, but don't seem to be benefited to the amount of one dime. I at last undertook to put mustard plasters back of ears at night—seems better, but don't recover. Will you please inform me what is best to do? If you can tell me how to restore them, it would be worth ten times the year's subscription to *SCIENCE OF HEALTH*."

Electricity, with Hygienic diet, is frequently successful.

CATARRH.—F. M. N.—"1. Can catarrh in the head, of nine years' standing, be perma-

nently cured? 2. What are the best remedies or mode of treatment? 3. If curable, how long will it take to effect a cure? 4. What is the cause of catarrh? I would say, that I have been careful as to my habits of life; have lived on a plain and simple diet, and am accustomed to bathe the entire body daily. I think there should be some local treatment, but what it should be, and how to reach the parts affected, I am at a loss to know."

All these subjects, including cause and cure, are fully explained in "*Digestion and Dyspepsia*."

WEANING A BABY.—G. W. H.—"When shall I wean my baby? He is now almost eight months old, has teeth, and weighs twenty-three pounds; is a fine, healthy-looking child. I nurse him every three hours every day, and once in the night, and have plenty of milk for him. Have never given him anything except milk. Please tell me when to commence feeding him, and what to feed him."

Let baby nurse as long as the quantity and quality of the milk are good.

NUTS AS FOOD.—S. C. S.—"Are nuts, especially hickory nuts, healthful as food, when taken occasionally in moderate quantities?"

Yes; to persons of good digestion and hygienic habits.

THE BLOOD.—T. R. S.—"Is there any other way to lessen the amount of blood which a person has, except by bleeding? And do you approve of bleeding? What is good to cool the blood? Also, what is the best cure for granular eyelids? Please answer by mail, and oblige."

If one eats proper quantities of proper food, and breathes plentifully of pure air, he will not need bleeding. If he keeps his skin clean by bathing, he will not need to "cool his blood." All trouble with the eyelids will disappear when you live hygienically.

ERRORS CORRECTED.—"Ed. *Science of Health*.—I have just read the article by Dr. Walter in your November number, and think it a very interesting one. But there is one statement that I cannot understand. He says, the healthiest person can stand the least medicine—the healthiest the man the less poison it takes to cause violent action in him. Now, you have said that if a man live according to the laws of life, there is little danger of his having the fever and ague, even though he live in malarious districts. Dr. Trall says the same. According to Dr. Walter's theory, if a healthy man remove from a place of pure air to malarious atmosphere, he will have the chills

sooner than a sickly one will. Will you be so kind as to explain in *SCIENCE OF HEALTH*."—C. R.

The statement of Dr. Walter is exactly true. No man is so susceptible to evil influences as the man who has heretofore been free from them. The dyspeptic of sedentary employment will exist and work in unventilated rooms, that would feel very uncomfortable or cause acute sickness in the robust. Who does not know of the violent sickness that follows, usually, the first cigar or chew of tobacco? A few glasses of cider will turn the head of the hearty young man quite as much as brandy will that of the debauchee. It is a well-known fact that Northerners moving South, are much more liable to the fevers of the locality, than those who have long breathed the miasm of the place.

Hygienic living is a protection, in part, against ague and fever, simply because this disease is not a disease of poisoning. Miasm is a remote cause, not the immediate cause of ague. A man may continue to have ague long after all the miasmatic poison has been cast out of his blood. The existing cause of this disease is an overtaxed and congested liver. No man will have ague who keeps a healthy liver, no matter how much miasm he breathes. Hygienic living is a protection against ague only because it does not clog liver and skin, as the ordinary habits of people do. It is the pork, butter, salt, spices, want of bathing, etc., that causes ague and fever, quite as much as it is miasm; and hygiene is a protection only because it permits the system to cast out the miasm as fast as it is taken in. Ague and fever is a disease of over-taxation and debility, and, hence, is not a parallel case to diseases of poisoning.

BOILS.—"I have been troubled with boils almost all my life. Have taken iron and bitters enough to kill or cure. What course of hygienic practice shall I take? Am troubled with constipation."

Regulate the bowels by proper—Hygienic—food. Wet-sheet packs will eradicate impurities from the skin, right living will purify the blood, and the cause of boils be removed. When boils first appear, apply cold wet cloths; later, fomentations or poultices will bring them to a head, when the core will be discharged, and the patient will recover.

CLEAN FEET.—A subscriber inquires if there is no way of preventing the foul odors which arise from one's feet. He remarks: "I notice when some persons remove their boots or shoes, that an exceedingly unpleasant smell fills the room. It is also perceptible to one of acute senses when sitting near persons whose feet sweat." In reply, we beg to state that there is a simple, harmless, and perfect remedy for this infirmity, namely: cleanliness. Let the feet be washed each morning on rising, when one washes his face and his hands. Let him change his stockings occasionally, two or three times a week, and

he will not suffer from foul odors from this quarter. The bad smells arising from the arm-pits, and also from other portions of the body, are nothing more nor less than excrementitious matters exuding from the skin, which remain and become frowy or fetid. Wash this off, and no bad smells will arise.

WHAT SHALL WE FEED THE BABE ?—"My babe is now a year and-a-half old, and it becomes necessary to wean him. What sort of food shall I feed him, and how often? Trusting the *SCIENCE OF HEALTH* will give the desired information, I remain, yours, A FAITHFUL READER."

Oat-meal, wheat-meal, corn-meal, made into mush and bread; also, mealy baked potatoes, and any kind of good ripe fruit. Only two things at a meal, however, which may be bread and fruit, mush and potatoes, or their equivalent. Feed it three times a day.

DISEASE OF THE KIDNEYS.—What work have you which you can recommend on this subject? *Ans.* Beale on Kidney Diseases and Urinary Deposits, Illustrated, price \$10, is probably the best.

PLANTS AND FLOWERS IN SLEEPING-ROOMS.—Will you please tell me if flowers are unhealthy, kept in a sleeping-room that is well ventilated? and if so, why?

It is a popular fallacy to suppose a few window-plants can be in any way objectionable in a well ventilated sleeping-room.

CHEST PROTECTORS.—J. E. S.—Do you consider the wearing of the chest or lung protectors, sold by apothecaries, as conducive to the health of one whose pulmonary system is rather weak?

No. Suitable clothing is sufficient. Your other questions will be answered by letter, if you send addresses with stamp.

SUPPERLESS TO BED.—I breakfast at 6 A.M., dine at 12 M., and take no supper. 1. Do you think a gnawing sense of hunger tends to keep one wakeful at night? 2. Should fruit be eaten after a regular meal? 3. What work would you recommend as covering the ground of physiology, dietetics, etc., as best suited to my uses?

Ans. One who breakfasts at 6 A.M. and dines at 12 M. should eat lightly towards evening, if it be but two or three gems or Graham crackers, with an apple or two. 1. Hunger, no doubt, tends to keep one from sleep. 2. Fruit should be taken as a part of the meal, rather than between meals. 3. The Illustrated Hydropathic Encyclopedia covers the grounds of your inquiry, with much other matter useful to know.

HYGIENIC HOMES.—There are Hygienic Institutions for the treatment of invalids who can pay high prices; but why not such Homes for the accommodation of those in health, as well?

Exactly. And this is just what will happen, in every family, when the teachings of *THE SCIENCE OF HEALTH* become generally accepted.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

NIGHT AIR.—R. S. N. writes us from Washington, as follows: "An item from Hall's *Journal of Health* is now floating through the press, to the effect that Water-Cure establishments have inflicted incalculable injury upon the community, in recommending windows of sleeping-rooms to be left open at night, etc. If it is so injurious to keep open windows, why is it that men can sleep upon the ground in log huts, tents, in out-houses, in the saddle, and all such places so at variance with the spirit of Dr. Hall's teaching, and yet enjoy rugged health? On the picket-post and march, even in midwinter, soldiers enjoy almost total immunity from the bad colds, fevers, etc., incident to comfortable barracks. Many years' residence in malarial climate causes belief, on my part, that sleeping in the second or third story, where the sun can shine in the room on a southwestern exposure, which room has all its sash taken out, leaving full play to night air, is a great safeguard against ague. Milk, in all its forms, is conducive to ague. Hearty drinking of milk at dinner, especially buttermilk, and then inaction in the hot sun for a half hour or so, will make the stoutest shake, and yet, according to Dr. Hall, sun-light must be inimical to health. So-called healthy food, in the hands of many, is terribly injurious to health, because it is eaten unseasonably and injudiciously. Take a person abnormally sensitive to cold through weak stomach, or other cause, and the exposure of a foot or an arm, or portion of the body, will induce a 'bad cold'; and yet I do sincerely doubt that a 'bad cold' would be given the same person by sleeping under an awning or on the ground, as soldiers do on picket. A draught of air striking one member, or part of the body, will give a cold. But a complete envelopment of air has not the same effect. That injudicious exposure to the concentrated draught of an open window may, as in case of injudicious use of healthful food, cause injury, I do not doubt. But that one must sleep in a tight room where a fire burns all night in order to escape colds, is a theory I cannot accept. An eight years' experience as soldier, and residence of ten years before the war in an agueish district, warrant me in condemning his views as of most injurious tendency, and certainly more so than improper following of sound teachings of Water-Cure establishments."

[In justice to Dr. Hall, our correspondent should have quoted that "floating paragraph," that the reader might have all the facts before him; and that a rejoinder from Dr. Hall may not be called for, our advice is, to one and all, sleep comfortably warm in well-ventilated apartments. Bad air is as bad for the lungs as bad food is for the stomach.]

HEALTHY COUNTRY GIRLS, BY ONE OF THEM.—Lydia Anglemyer "goes for Mrs. Dudley" as follows:

Country girls think Mrs. Dudley uses the wrong word when she describes us as a "sickly" class. We claim that good health prevails among us country girls in a much greater degree than among girls who have spent their lives in the city. And we are in a great measure indebted to our healthy mothers for our excellent bodily condition. God bless our kind mothers, who, in our youth, would not allow us to wear corsets, or indulge us in any such foolishness.

It surprises us—doesn't it, girls?—to learn that each of us has a silk dress? We think silk is worn just for the name. Surely it is not so cool in the summer, nor so warm in the winter, as many other goods less expensive. Calico becomes us better than silk, and with it we can have more frequent changes, and be the cleaner; and in winter we wear warm flannel dresses, but not made in the prevailing fashion.

Schools in the country afford us means of education, and, with our better health, we are more susceptible to teaching than girls in the city. Here we can study our physiology and hygiene.

We are charged with having on our tables popular newspapers; but a few on my table are the "Phrenological Journal," "Science of Health," etc.; and last, but not least, we have the Bible.

When Mrs. D. affirms that we have one or two hired servants, we are inclined to let it go in at one ear and out at the other; for we were taught to be servants ourselves, and go ahead with the work, whether mother was by or not. She is not afraid to leave home; but says, "the girls can do the work just as well as I can;" and such encouragement is worth something. So come, girls, don't let's be discouraged yet, if some do imagine us lazing and moping about. That doesn't make it so. We do not stay in the house all the time, but can work along with our brothers in the field, and are all the healthier for doing so. A man is not hired to keep our garden in order, nor is it converted into a lawn. *Where would all the fruit and vegetables be, if all the farmers should do so?* I think the city markets would not amount to much, if it were not for the farmers.

True, our fathers keep up "this machinery"—he is the head of the family, but we all try to help in keeping this machinery in action; but they don't think they can do more work than any other three men. Our model father rises early, goes out for exercise, but don't do half a day's work before breakfast. We do think that, if he did as you say, he would not be a farmer. Farmers here don't do

their farming in town. They do not on their farms; but not all do this, and drive like mad for the steam cars to get to the city in good time. If he does go to the city, he does not take the train, nor does he stay so long as to be put off with a bite. The lady writer says that we are like our fathers, as she describes them: but if we resemble our father, as I have described him, we are not so useless as some might imagine. We think that dawdling country girls, that come down to breakfast half dressed, and with manners corresponding, are the exception, and not the rule. As far as I know, we get up and get breakfast, or assist, and are about and have exercise and are ready for a good hearty breakfast.

We are compared to a mouse or canary bird. I am sure that if we were as regular in our diet as they are, there would be less sickness than there is. Not one of us needs to run to throw the window up, for we are not afraid to have part of them open all the time. Then we are told that night air is unhealthy. If we breathe in the night, what do we breathe but night air? and I say the purer the better. We have also plants and flowers in the house, which give the home a healthful and cheerful look.

If a ramble is proposed, the country girl does not object, but is ready for a race, and a little mud does not hinder.

If a well-to-do farmer wants a wife, strong and healthy, how would he get one if nearly every one was sickly and delicate? They don't want such girls for wives. They look among girls for wives that are not afraid of fresh air and sunshine, that understand and appreciate Hygiene in all its branches.

Our country girls are not quite so unintelligent that the weather is never just right. We don't need long coaxing to take a carriage ride, or a ride on the hay rake, or reaper, or anything, so that we can breathe the pure air. We are not girls tied to the apron-strings of fine parlors and easy cushions, month after month, until we become so weak-minded as not to obey the Science of Health any more.

Come and spend next summer with us here in Northern Indiana with our mothers, and then tell us what you think about the country girls, and not say they desire to look pale and delicate; for no girl of a sound mind longs for an unsound body.

[We have other protests on the same subject; but Lydia has spoken, and we now let the curtain drop. We suppose Country Boys will soon come in for a "dressing," when our city chaps will catch it in return. Kind criticism, it is believed, may do good.—ED.]

WILL OUR RACE BECOME EXTINCT?

In a review of our recent work on "Digestion and Dyspepsia," *Wood's Household Magazine* says:

This book contains a complete explanation of the physiology of the digestive processes, with the symptoms and treatment of dyspepsia and

other disorders of the digestive organs. Dr. Traill has had the professional management of thousands of invalids, and the chapters in this book are not compilations from the works of others, but made up from his own experiences during the last thirty years, and advance theories and recommend practice true and successful. He does not believe in the administration of medicine, but relies exclusively on hygienic agencies as remedial resources. Everyone is more or less dyspeptic now-a-days, but literature calculated to instruct the people upon this subject, and enable them to treat themselves when sick, without employing a physician or frequenting a drug-store, is exceedingly limited. We hope, therefore, that this sensible, valuable book will be sought and read by many, and do away with the popular delusion that one must take "Bitters," "Tonics," etc., etc., into his stomach in order to be cured. One thing is patent—if the American race doesn't arrest its dyspeptic tendency, it will eventually become extinct. The mortality of dyspepsia does not present itself under that head in the "Vital statistics," but the fearful record appears under other names. It is the condition which almost always precedes consumption, and is intimately connected with diseases of the liver, kidneys, heart, with scrofula, etc. Most cases of apoplexy, paralysis, many of pneumonia, bronchitis, and nine-tenths of the convulsions in children have their predisposing causes in that condition of defective or depraved nutrition to which the term indigestion is applicable. Is it not, then, time that this subject was thoroughly investigated by everyone? Granting this, there is no treatise on this subject we would recommend to your earnest attention in preference to the one now before us, which is the most sensible little book we have read for a long time, containing advice which, if acted upon cannot but effect radical cures. Price \$1.

The Library.

BOOKS.—Among the many sources of enjoyment presented to us by a kind Creator, there are few which open up a wider field for unalloyed pleasure, improvement, and real satisfaction, than reading. "Were I offered," says Fenelon, "all the gold of India and all the crowns of Europe in exchange for my love of reading, I would scorn them all."

They draw aside the curtain which shrouds from us the past, and we may trace a nation's rise and progress, or perchance weep over the story of its fall. They lead us to the birth-place of reformers and patriots, or to the death-beds of kings and conquerors.

The principal characters of every age and country again appear, and describe their struggles or relate their victories.

Showing us of what great things the human mind is capable, when properly trained and cultivated, and clearly demonstrating that industry, perseverance, courage, and integrity are the royal roads which open the avenues to success in life.

What though unavoidable circumstances may deprive us of the communion of kindred minds, when biography, with all its lessons, literature, with its choicest treasures, and history, with its instructive stores, are ours to choose from?

Yes! thank God for books—for those whose aim is to instruct, comfort, and strengthen—to ennoble and improve, to bestow on us resignation and fortitude, and make us willing to "Learn to labor and to wait."

Silent sympathizers, faithful friends, unobtrusive advisers; they betray no confidence, wound no sensitive heart, but are true alike in adversity as in prosperity. But far more precious than any words which emanate from human wisdom are those of the Book "whose leaves are for the healing of the nations." They have cheered the prisoner in his dreary cell, inspired with fresh zeal the toil-worn missionary 'midst the deserts of Arabia or 'neath the burning sun of Africa; given hope to the miserable, joy to the wretched, life to the spiritually dead. They have been the guiding star of every truly great life, and shed new light on the darkness of death.

C. J. A.

GUIDE TO FLORIDA. By "Rambler."

One vol., 12mo, pp. 144. Cloth. Price, \$1.00. New York: American News Company.

Those who intend to visit Florida and the South, should read this little hand-book, which gives much useful, nay, indispensable, information relating to wintering in Florida. The author need not have withheld his name. He has made a worthy book, and beautiful withal. Besides its excellent literary matter, it contains some twenty or more pages of advertisements, describing various routes by rail and by sea, including hotels, boarding-houses, schools, academies, etc., all useful for the visitor.

THE NATIONAL TEMPERANCE ALMANAC

and Teetotaler's Year Book for the year of our Lord 1874, containing in addition to the Calendar and Astronomical Calculations, Statistics of Intemperance, Lists of Grand Bodies, National and State Societies, with Post-office address of Chief Officers, a full Directory of all Temperance Organizations of New York City and Brooklyn, Temperance Papers and Puzzles, Publications, Anecdotes, Stories, Illustrations, etc. By J. A. Stearns. Price, only 10 cents. New York: National Temperance Society.

WORK AND REWARD. By Mrs. M. A.

Holt. New York: National Temperance Society, No. 58 Reade street

This is a religious temperance tale, for the encouragement of children to live lives of sobriety and industry. It is one of a series running through the prolific N. T. S. Pub. House. Let every Sunday-school procure a copy.

PROCEEDINGS OF THE SEVENTH NATIONAL TEMPERANCE CONVENTION, held at Saratoga,

N. Y., on August 26th and 27th. Containing the Papers Presented, Speeches Delivered, Resolutions Adopted, Roll of Delegates, etc., etc. New York: National Temperance and Publishing House. Price, 25 cents.

A pamphlet of over one hundred and sixty pages, closely printed, and containing the Record of the Proceedings of this National Convention, full of interest to every friend of the Temperance movement. Besides the Speeches delivered the following essays, were written

by some of the best-thinkers interested in the cause: "Law as an Educator," "Effort for Youth," "National Legislation," "Parental Responsibility," "The Relations of Drunkenness to Crime," "Temperance Literature," "Sabbath and the Beer Question," "Temperance in Educational Institutions," and others, but among them all we find no paper on the physiological effects of alcohol. While these efforts do good the friends of the cause must go to the root of the matter, and show the people that alcohol, in every form, is a poison; that it cannot be used under any circumstances without injury.

***SCRIBNERS MONTHLY.**—This magazine enters upon its Seventh Volume with the November number, which contains the first of a Series of Articles on the South, which will prove of interest to all readers.

This magazine has outstripped all others of its class, if, indeed, there is another belonging to this same class. The contributions are varied from stories to science. It is published at \$4 a year, and furnished, clubbed with the SCIENCE OF HEALTH, at \$5.25.

SOUNDS FROM SECRET CHAMBERS. By

Laura C. Redden ("Howard Glyndon"). 18mo. Price, \$1.50.

BRONSON'S MANUAL OF ELOCUTION.

Embracing the Philosophy of Vocalization. By C. P. Bronson, M.D. Edited by Mrs. Laura M. Bronson. 8vo, pp. 380. Price, \$2.

LECTURES ON DISEASES AND INJURIES

OF THE EAR, delivered at St. George's Hospital. By W. B. Dalby, F.R.C.S. With 23 Illustrations. 12mo. Price, \$1.50.

A PRACTICAL TREATISE ON THE DISEASES OF THE EAR, including the Anatomy of the Organ.

By D. B. St. John Roosa, M.A., M.D. Illustrated by Wood Engravings and Chromo-lithographs. 8vo, pp. 585. Price, \$5; sheep, \$6.

A MANUAL OF MEDICAL JURISPRUDENCE.

By Alfred Swaine Taylor. Seventh American Edition. Edited by John J. Reese, M.D. 8vo, pp. 879. Price, \$5; leather, \$6.

ON THE MECHANICAL TREATMENT OF

THE DISEASES OF THE HIP-JOINT. By Charles Fayette Taylor, M.D. 8vo, pp. 62. Price, \$1.

ON THE PREVENTIVE TREATMENT OF

CALCULOUS DISEASES, AND THE USE OF SOLVENT REMEDIES. By Sir Henry Thompson, F.R.S., etc. 12mo, pp. 72. Price, \$1.

A TREATISE ON THE DISEASES OF THE

EYE. Illustrated by 16 Ophthalmoscopic Plates and numerous Engravings on Wood. Third Revised and Enlarged Edition. By J. Sodberg Wells, M.D. 8vo, pp. 381. Price, \$6.50; leather, \$7.50.

A YEAR-BOOK OF THERAPEUTICS, PHAR-

MACY AND ALLIED SCIENCE. Edited by Horatio C. Wood, Jr., M.D. 8vo, pp. 377. Price, \$2.50.

SILVER AND GOLD. An Account of the

Mining and Metallurgical Industry of the United States, with reference chiefly to the Precious Metals. By W. R. Raymond, Ph. D. 8vo. Illustrated. \$3.50.

Our Puzzle Column.

A DOUBLE ACROSTIC.

A nut, likewise a color.
A plant bearing aromatic seeds.
The name of a republic.
A design.
A bulky piece of wood.
The Pope's triple crown.
Juice of the poppy brought from the Levant.
The point of a pen.
A stringed instrument of music.
Premium paid for the use of money.
A narrow passage of water.
A water serpent.

The initials and finals give the names of two eminent statesmen; the initials an American, the finals a Frenchman.
GEO. L. ADAMS.

ARITHMETICAL.

The answer will be six numbers, none of which exceed the number nine.

My first and second equal my third, fifth and sixth.
My first exceeds my third by my second.
My second and third equal my first.
My fourth and sixth equal my first.
My third and fourth equal my fifth and sixth.
My third doubles my fourth.
My fourth doubles my fifth.
My sixth fall short of my first by my fourth.
My third and fourth are my fifth less than my first.
My second and sixth exceed my first by my fifth.
My second equals my fourth and fifth. ISABEL.

BURIED CITIES.

KEY.—From each line may be unearthed a city or town, as may be seen by the italics in the first example. *Penelope* or *I* are going to the fair at the Rink. (Peoria.)

Otto led on a large horse.
Jane sings alto, not soprano.
That the dog is mad is on the bulletin.
Jessica, I row on the river.
There are grapes of *Mascot* in every box.
What a singular man *Chester Brown* is!
Heigh ho! we go skating to-day.
Are you well read in Goldsmith's histories?

BETH.

A CROSSWORD.

KEY.—The answer is formed by taking one letter from the word specified in each line, and fitting these selected letters together.

My first is in nation, but not in people;
My second in spire, but not in steeple;
My third is in Adam, but is not in Eve;
My fourth is in give, but is not in receive;
My fifth is in snake, but is not in fish;
My sixth is in tumbler, but is not in dish;
My seventh in dollars, but is not in pence;
My eighth is in feeling, but is not in sense;
My ninth is in apple, but is not in plum;
My tenth is in ale, but is not in rum;
My eleventh in land, but not in water;
My last is in son, but is not in daughter;
My whole is one of the greatest of natural wonders.

MATIE E. DUNK.

Answers will be published in the March number, in order to give our readers time to send solutions. All are cordially invited to this column, and the names of those who send correct answers will be inserted. The answers must be received by the 30th of January, and should be addressed to L. K. Gray, Ipswich, Mass.

Hygienic Seasoning.

A TOWN in Massachusetts is the proud possessor of a cat that picks up pine and puts them into a paper, whenever she finds one. After getting a hundred, she exchanges them for meat at the butcher's. The likelihood of this tale is its chief beauty. One can't help believing it.

THE poet Saxe sent this sentiment to a friend the other day:

You have heard of "the snake in the grass," my boy,
Of the terrible snake in the grass;
But now you must know,
Man's deadliest foe
Is a snake of a different class,
Alas! 'tis the venomous snake in the glass!

"JAMES JENKINS," said a schoolmaster to his pupil, "what is an average?" "A thing, sir," replied the scholar, promptly, "that hens lay eggs on." Why do you say that, you silly boy?" replied the pedagogue. "Because, sir, said the youth, "I heard a gentleman say the other day that a hen would lay, on an average, one hundred and twenty eggs a year."

A MINISTER had a negro in his family. One Sunday, when he was preaching, he happened to look in the pew where the negro was, and could hardly contain himself as he saw the negro, who could not read or write a word, scribbling away most industriously. After meeting, he said to the negro, "Tom, what were you doing in church?" "Taking notes, massa; all de gemmen takes notes." "Bring the notes here and let me see them." Tom brought his notes, which looked more like Chinese than English. "Why, Tom, this is all nonsense." "I thought so, massa, all the time you was preaching it."

VEN some man slaps me on der shoulder, und say, "I was glad to hear you was so well," und den stick behind my pack his finger to his nose, I haf my opinion of dot feller."

"UNLESS you give me aid," said a beggar to a benevolent lady, "I am afraid I will have to resort to something which I greatly dislike to do." The lady handed him a dollar, and compassionately asked, "What is it, poor man, that I have saved you from?" "Work," was the mournful answer.

SOME gentlemen were talking about meanness, when one said he knew a man on Lexington Avenue who was the meanest man in New York. "How mean is that?" asked a friend. "Why, so mean that he keeps a five-cent piece with a string tied to it to give to beggars, and, when their backs are turned, he jerks it out of their pockets." "Why, this man is so mean," continued the gentleman, "that he gave his children ten cents a piece the night before the Fourth of July; but during the night, when they were asleep, he went upstairs, took the money out of their clothes, and then whipped them in the morning for losing it!" "Does he do anything else?" "Yes; the other day I dined with him, and I noticed the poor little servant girl whistled all the way up-stairs with the dessert, and when I asked my generous friend what made her whistle so happily, he said, "Why, I keep her whistling so she can't eat the raisins out of the cake!"

"I've got an idea in my head," exclaimed a young man, entering a drygoods store, whereupon one of the clerks said, "You had better get it out at once, or it will be fearfully lonesome and companionless."



NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

DRINK, DEATH-RATE, AND PAUPER-RATE.

BY JAMES ALEXANDER MOWATT.

MOST citizens of America have a certain vague, ill-defined idea that the Irish people are the most drunken population in Europe. Why this notion prevails so extensively is, no doubt, because of this indisputable truth that, unfortunately, when my countrymen get any quantity of alcoholic liquor in their system—no matter how little—they appear to think it necessary to get into a row, knock down a policeman, get arrested, and appear before the courts for drunkenness, disorderly conduct, and assaulting the constables.

But, as a matter of fact, proved by the most reliable statistics, there is less alcoholic liquor consumed in Ireland than in any part of the United Kingdom; and, as a result, there is also less pauperism and a lower death-rate. Again and again have I seen it published in American journals, as gospel, that the pauperism of Ireland was the worst in Europe. In one instance I have seen it stated in print that one in ten of the population of Ireland are paupers. I guarantee to prove, beyond a doubt, that the Irish people drink the least, have the fewest paupers, and the lowest rate of mortality of any of the countries forming the United Kingdom.

For this purpose I shall take the returns for the last five years, and contrast the amount wasted in drink in England

and Wales, and the pauperism and death-rate resulting therefrom, with the very same returns for Ireland during those five years; and, no doubt, cause many readers of even so able a journal as the SCIENCE OF HEALTH to be amazed at coming to a "knowledge of the truth" on these matters:

ENGLAND AND WALES.

	Population.	Amount spent in Drinks.	Amount per Head.	Paupers per 1000.	Mortality per 1000.
1868.....	21,882,059	£95,073,381	£4 7s. 9d.	47.6	21.9
1869.....	22,164,847	92,593,031	4 3 6	46.9	22.7
1870.....	22,457,366	95,243,834	4 4 10	48.0	22.9
1871.....	22,760,371	94,305,371	4 3 4	47.5	22.6
1872.....	23,067,885	105,634,097	4 10 5	42.4	21.0
Average,	£26,671,755	£4 5 11½	46.35	22.2	

IRELAND.

	Population.	Amount spent in Drinks.	Amount per Head.	Paupers per 1000.	Mortality per 1000.
1868.....	5,461,299	£10,318,603	£1 17s. 9d.	11.5	15.8
1869.....	5,448,919	10,549,335	1 18 9	13.7	16.4
1870.....	5,412,660	11,490,789	2 3 5	13.6	16.7
1871.....	5,366,708	11,622,459	2 3 1	13.7	16.4
1872.....	5,368,096	11,604,630	2 3 2	14.0	18.2
Average,	£11,117,161	£2 1 1	13.3	16.7	

From these figures, it will be at once seen that the population of Ireland does not drink one-half as much, on an average, per head, of intoxicating liquors as the English; and that their paupers do not number much more than one-fourth as many in the 1,000 of the population as the paupers in England and Wales;

while the mortality is the lowest in all Europe.

There can be no error in these figures—none whatever, as far as the number of paupers and the mortality is concerned. The amount spent on intoxicating drinks is calculated, as with ourselves in America, on the quantity of duty-paying liquor consumed in each country, and if there were even any slight error in these figures, it would occur in both those for England and those for Ireland; so that the comparison would not be changed in the least by any correction of the amount spent in drinks. It would still stand in the population of

England,\$21.00 per head.

Ireland, 10.00 “

The English people drink beer almost as universally as the Germans. With the exception of the large population of teetotalers, all the others consume beer every day at dinner, and again at a late supper, say at 10 o'clock at night.

The Irish people, on the other hand, are not beer-drinkers. The masses never drink any alcoholic liquors at meals. “Pat” drinks for companionship, and a “spree;” but is not fool enough to call it “nourishment” and take it at dinner.

This makes the great difference in the amount spent on drinks in England and Ireland, respectively.

The wealth of England, of course, exceeds that of any nation of the world. And so does its pauperism. The contrast in this respect between England and Ireland is very readily accounted for, and is greatly to the credit of the Irish.

The most accomplished, skilled artisans of England—tradesmen earning \$25, gold, per week, worth \$60 in purchasing power in America—will drink and “spree” it all; leave their families in wretchedness; and when appealed to, as to what they are to do themselves in sickness and old age, they reply, “What’s the parish for, I’d like to know, but to keep a chap then?” That is, the taxes of the occupiers and property owners of the parish must keep him in sickness and old age, and he will make no provision himself

for such periods in the future. Not only so; but these men most coolly and deliberately place their aged fathers and mothers in the poor-houses, to be maintained at the public expense. We have known many of them to do this; and even to bring the old folk out of the poor-house for Christmas day, and let them go back again as soon as Christmas was over.

In Ireland, on the other hand, the poor-house is detested. To be in the poor-house once, is a lasting disgrace for life; and for a family, and all relations, as well. In the famine years hundreds died of want and starvation, rather than enter the poor-house. The last potato would be shared, even with a mother-in-law, rather than let her go to the poor-house. The result of this justifiable pride of the Irish people, is to greatly reduce the actual pauperism which figures in public returns; even though the people are poorer, of course, than in England.

The mortality is less in Ireland than anywhere else in Europe for several reasons. The mass of the population lives in the country—not in large cities. Its largest cities—Dublin, Belfast, Cork, Waterford, Limerick—have good sanitary regulations, excellent and abundant water, open rivers, with their free circulation of air, running through each city; good squares at short distances from each other inside the cities, tending to purify their atmosphere by free ventilation of the streets and lanes off these open spaces; all these things operating to promote health and increase longevity. The food of the bulk of the Irish population is plain and simple—potatoes, home-made bread, oatmeal porridge and cakes, milk, butter, eggs; seldom flesh of any kind. “More die of eating too much than of eating too little,” was the philosophic remark of a Lancashire gravedigger, in idle times during the “cotton-famine,” when the reporter of the *London Times* asked if his trade was not brisk, owing to the destitution around? The Irish people, as a rule, do not “eat too much,” especially of heavy, indigestible, greasy food, as is done in America by al-

most all classes. As a consequence, the Irish only die at the rate of 16.7 to 1,000 persons living in each year; while in England, with "roast beef and plum-pudding," "bread and cheese and beaw" (beer), it is 22.2 in 1,000; and in these United States, with its "beef three times a day," and greasy pastry oftener, the death-rate exceeds that of England, even.

The largest number of centenarians, in proportion to the population, is also to be found in Ireland.

All these facts taken together account for the prolific nature of the Irish race, and show how they spread themselves throughout the world. They are reared on plain and simple food, with good and free exercise on foot at all seasons. They bring up large families of children, numbering up to twelve and sixteen—the offspring of one father and mother. Then they only die at the rate of 16.7 in 1,000 annually; and, of course, they must thus multiply rapidly.

Having endeavored to explain the various causes affecting the pauperism and

mortality of the two countries, England and Ireland, let it not be lost sight of that the great evil underlying all is the consumption—the enormous consumption—of alcoholic liquors in England. Given \$21.00 a year per head spent in England in intoxicants, and the fruits are 46.35 per 1,000 of the people paupers, and 22.2 per 1,000 die annually. Given \$10.00 per head wasted in Ireland in liquors, and the result is 13.3 in 1,000 of the population paupers, and 16.7 in 1,000 die annually.

England thus loses 160,000 of her population annually by death, that could be preserved alive if the rate of mortality was as low as in Ireland. Liquor destroys these vast extra numbers.

And may we not conclude, that if the consumption of intoxicating liquors was still further lessened, even in Ireland, the pauperism and mortality could be just so much reduced in proportion?

Will Americans weigh well these figures and facts, and be warned by them in time?

DISEASE AND ITS TREATMENT.—No. 12.

BY ROBERT WALTER, M.D.

The Properties of Medicines.

HAVING assumed that medicines act upon the living system, and that all their varied effects are the results of that action, medical men next undertake to classify them according to their supposed properties. One class, we are told, possesses stimulant properties, another sedative, another narcotic. There are nervines and tonics, emetics and cathartics, diuretics and diaphoretics, and a host of others too numerous to mention.

But it was soon found that no classification was even approximately correct. No two medicines are exactly alike in their effects; and the same medicine will often vary from one extreme to another, at different times, in different individuals. Alcohol, for instance, may be a stimulant in one case, or its opposite narcotic or sedative in another, according to dose. It may be emetic or nauseant, and su-

dorific or diuretic, rubefacient or irritant, spasmodic or anti-spasmodic, as the case may be. Thus a man takes a glass of brandy, and is exhilarated thereby; he takes another, and becomes excited and boisterous; still another, and he is sedated or narcotized; becomes sleepy, dull, stupid, "dead drunk." He sings or dances, swears or prays, becomes either very loving or very quarrelsome; spews, vomits, gets sober, or dies; and we are told that all this is the action of the alcohol—the result of its peculiar properties.

We respectfully dissent. It is the action of the man who has become demoralized by the use of the poison, and not by the action of the poison. Just so, when the physician finds his patient very low and weak, he supplies brandy in tablespoonful doses, and lo! the pulse becomes fuller and stronger, circulation

apparently improved; and the doctor says *that* is the action of the brandy; it has increased the patient's strength; it has given tone to the system; it has improved his conditions and saved his life.

We demur to the conclusions. It is not the action of the brandy, but of the vital forces; it has not in any sense given the patient strength or tone, but has actually reduced his strength by causing an abnormal exhibition of it; it has impoverished his constitution and not improved it; has not saved his life, but in thousands of cases has caused destruction of life. The error is in mistaking a cause of action for the action itself, which is just as foolish as it would be to mistake fire for steam, or sealing-wax for electricity. All the brandy in Christendom cannot cause an exhibition of strength where the strength does not already exist. Think of a doctor pouring brandy down the throat of a dead man, and then feeling his pulse to see how the brandy acts. This would be perfectly reasonable, if the brandy acted; but, inasmuch as it does not act at all, it is absurd. If the strengthening or stimulating property resides in the brandy, we would see dead men stimulated into life every day. If whiskey or arsenic, quinine, or strychnine gives strength, what foolish people some of us are to remain weak, when we might be as strong as Hercules, and as agile as a tiger.

If stimulants and tonics give strength, why should the strength of the invalid so often continue to fail, in spite of the large quantities that he is daily taking. Why should the Prince Consort have grown weaker and died, while swallowing brandy to keep up his strength? and why in the name of common sense should his son the Prince of Wales have steadily continued to fail under brandy, until death seemed imminent; but immediately began to improve in strength when the brandy was withheld, and milk substituted? How is it that the brandy and other stimulants and tonics, given the late Emperor Napoleon, did not keep up his strength, but rather allowed him suddenly to collapse?

Medical men have yet to learn that tonics and stimulants do not give strength, but, on the contrary, reduce strength by requiring increased expenditure of it to protect if possible the vital organs from the poison. We know that stimulants cause increased exhibition of strength up to a certain point, just as war apparently enriches a nation—just as the last despairing charge of an enemy often shows increased energy and ferocity. At no time will a man show greater vigor than when fighting for life. The weak and bed-ridden woman who has been lifted from bed to chair for years, has been known to spring from her couch in a burning building, lift her trunk to the window and throw it out, and then run down-stairs and save herself. Here was great stimulation—great exhibition of strength; but who will claim these to be strength-giving processes.

Tobacco is credited with having a score of different properties. Its chief one is supposed to be narcotic; but it is also stimulant, sedative, tonic, emetic, purgative, siologogue, sternutatory, errhine, etc., etc.

Opium, too, is supposed to have varied properties, according to the manner in which it is administered.

If these properties reside in the medicine, is it not strange that they are not always found in it. If opium is a narcotic how is it possible that a small dose of it is the opposite—stimulating. If the sedating, toning narcotic properties, that put men in such heavenly frames of mind, reside in the tobacco, is it not strange that it should also possess the nauseating, emetic, and purgative properties that sometimes put them in very unheavenly frames of mind.

"Four grains of calomel will sometimes kill an adult," said Prof. Gilman, of the New York Medical School. "From thirty to sixty grains of calomel have been given very young children for croup," said Prof. Clark, of the same school. "Tablespoonful doses—480 grains—of calomel have been given at a dose in cholera," said Prof. Davis, before quoted. What a wicked and unreliable

sprite calomel must be. Four grains to kill an adult, and yet one hundred and twenty times that amount given to cure cholera. No wonder that, in spite of the closest attention from the physician, death so often gets the advantage. No wonder that the mathematics of medicine is so little understood. If four grains of calomel kill an adult, and sixty grains kill or cure the croup, and four hundred and eighty grains are a dose for the cholera, how many grains are necessary to teach a medical practitioner common sense? Verily, *medicines* move in a mysterious way, their wonders to perform.

Calomel is a fair sample of all the rest. A practiced opium-eater will grow radiant and joyous under the daily employment of eight or ten grains of this medicament, which would cause the death of an ordinary person. At first, a quarter of a grain will be a sufficient dose, then it must be increased to a grain, and so the longer it is used the larger the quantity necessary to produce the desired effect, until twenty or more grains at a dose have been used. What causes the change? Is it the opium or the vital system that loses its force? Does the power that produces such varied and changing results reside in the opium or in the man?

Opium is a homogeneous substance, possessing in general the same qualities, and always responding to the same tests; but men differ, and the conditions of the same vital system are very different at different times; and this explains entirely the different effects of the drug. The action is the action of the living system, and it varies according to the conditions of the living systems, and not because of any whim, or mysterious intelligence, or power possessed by the noxious agent.

But why does one drug affect the stomach, another the bowels, another the liver, and others kidneys, skin, nerves, muscles, etc? The doctors say it is because of an "elective affinity." Calomel elects or selects the liver on which to operate primarily, ipecac the stomach, jalap the bowels, nitre the kid-

neys, alcohol the brain, etc., etc. And so the mystery grows. The affinities of the free-lovers, either in intelligence or caprice, are nothing in comparison to those of medicines. They travel to their destination, select their victims, operate violently or quietly, irritatingly or soothingly, as their minds may be. The same medicine, in the same quantity, kills this man and cures that one; pukes this, and purges the next; strengthens the weak dyspeptic, but weakens the strong dram-drinker; cools me, but warms you; is life to the one, but death to the other. No old toper ever claimed for his especial favorite, such versatility of genius, such heavenly qualities and divine inspirations, as the doctor does for his drug. *And for precisely the same reasons, it seems to pay.*

But there must be a reason why certain drugs affect certain organs more than others. The fact none can dispute. Opium differs quite largely from strychnine, and alcohol from digitalis. The use of belladonna is followed by results quite different, from that of turpentine; and the close observer will be sure to notice a good degree of intelligence—the intelligence of instinct—displayed in their disposal. Whence does this intelligence proceed? From the instincts of the living organs, or those of the dead matter? Action implies recognition and will—instinct, if not reason. Are medicaments clothed with these great attributes of life? Dungenlis and many others would lead us thus to believe. They class nearly all medicines as *vital agents*, placing but a very few as "chemical" and "mechanical agents."

This vital action of medicines we deny. The theory is absurd, and the practice destructive to all those who submit to it. Instinct belongs only to life. Vital agents are living agents; and no imagination even, let alone reason, that have not been debauched and bewildered by years of devotion to false teachings, could make such an absurd use of words. The instinct that causes the stomach to eject lobelia, ipecachuana, sulphate of zinc or of copper, is the instinct of the

living organic system, and not of the dead, inorganic matter.

When medicines are introduced into the living system, the power of election or selection is undoubtedly exhibited; but it is the vital organism that "elects" or selects. It is the office of the liver to select from the blood certain worn-out materials, and carry them into the bowels in the shape of bile. The kidneys select other materials, the skin others, the bowels still others, etc., each one performing its own work as best it may. While all the health conditions are observed, all these organs perform their work healthfully; but when noxious materials are forced upon them, they work more energetically for the time, in an endeavor to cast out these substances. The bowels work energetically to cast out aloes, senna, jalap, elaterium, gambogia, etc., because, in the natural order of things, it falls within their province to detect their presence and cast them out. The stomach rejects lobelia, because it is very offensive to its instincts, and vomits it because it can thus be best disposed of. The liver takes up from the blood, podophyllin, and casts it out, because the nature of the material brings it within the province of the liver. Alcohol, and all other stimulants, are sent to the surface to be disposed of; but, in the mean time, especially if they are continually used, they become lodged in the various tissues of the system, inducing continual efforts on the part of these tissues to get rid of them.

Each and every corpuscle of the living body is itself a living thing, endowed with instinct and power of action. They can discern good from bad, and know enough to court the one and reject the other. Hence, as long as they have life, they fight against poison and try to expel it; and it is this warfare of life against poison that explains *in toto* all there is of the *modus operandi* of medicines. The different organs act differently because it is their nature to do so; and thus the different effects of medicine. Alcohol makes a man think and feel more keenly and actively, because all his nerves are in arms, as it were, against the intruder.

And they know no other way to fight, but to think and feel and will. Just as a cavalry man fights on horseback, the infantry on foot, the artillery through their big guns. Just as the elephant fights with his trunk, the lion with his teeth, the bear with his paws, skunk and whale with their tails, the orator with his tongue, pugilist with his fists, etc. When the stomach acts vigorously, as in warfare, it does not think, but contract, and so vomits or digests; the liver does not digest, but excretes; the brain, if all its corpuscles or fibres are in a state of defence against the enemy alcohol, thinks rapidly, feels powerfully, expresses passion, will, etc. It cannot excrete the poison, as the kidneys would do, any more than David could fight in Saul's armor or with Goliath's staff. Each must do its own work in its own way, fighting its own battles as best it may.

The *modus operandi* of medicines means only the mode of warfare of the vital instincts against an enemy. It is properly the *modus operandi* of disease (for all such action is diseased action), and under this head we will consider it in our next.

INHERITANCE OF APPETITE FOR ALCOHOL.—A striking instance of this kind has been recently brought to our knowledge. A lady, wife of the mayor of an Atlantic city, was a confirmed inebriate, and in spite of the most assiduous efforts made by her husband and others to restrain and reform her, continued to drink until her life fell a sacrifice to the indulgence. Her grandmothers were both intemperate, and they both died from drunkenness. Several of her brothers were inebriates. She had one child, a daughter, who exhibited in childhood a marked appetite for strong drink, and who drank to intoxication whenever she had the opportunity. This child died at the age of six years. During her brief life she was known to have been repeatedly drunk. So inveterate was her appetite for liquor that she resorted to the most cunning tricks in order to procure it—tricks such as would do credit to the ingenuity of an adult.—*Pacific Med. and Surg. Jour.*

A TEMPERATE and regular habit, a cheerful and contented disposition, and a harmonious proportion of all the parts of the body, are necessary conditions for longevity.—*Nathan Allen, M. D.*

OF WHAT DID AGASSIZ DIE?

BY R. T. TRALL, M.D.

It is just as impossible for medical men, however learned and experienced they may be, to diagnosticate disease correctly from false premises as it is for water to run contrary to the law of gravitation.

The medical profession confesses that it does not understand and cannot explain the intrinsic nature of disease; that it only knows its forms and features, without understanding why or wherefore. But the profession is in a worse predicament than that of simple ignorance on this subject. It is in error. It teaches a false theory. And a successful practice cannot by any possibility be predicated on erroneous theory. The medical profession regards diseases as forces or entities at war with vitality. This is false. And its practice is to subdue, kill, or cure the abnormal force or entity with poisonous drugs. This is wrong. But the practice is consistent with the theory.

The recent sickness and death of the distinguished *savant*, Professor Agassiz, illustrates the subject before us, as does the history and treatment of nine-tenths of all the other persons, distinguished or undistinguished, who die. The following telegram to the New York *Tribune* presents the important points of the case :

Boston, Dec. 16.—Prof. Agassiz's short illness was, from a medical point of view, involved in much obscurity. Dr. Brown-Séquard, who has made diseases of the nerves and brain a specialty, and who observed every phase of Agassiz's case from the beginning, declared himself considerably puzzled. Dr. Wyman, one of the most skillful physicians in the country, was also untiring in his presence and observation, and agreed with Dr. Brown-Séquard as to the great difficulty and obscurity of the case. Under these circumstances, Prof. Agassiz's friends readily consented to a post-mortem examination, and took measures to make it as thorough as possible. Seven of the most eminent physicians of Cambridge and Boston were summoned to the autopsy, namely, Dr. John Jackson, Dr. Calvin Ellis, Dr. R. H. Fitz, Dr. Jas. Putnam, Dr. Jeffries Wyman, of Harvard College, Dr. Morrill Wyman, who attended Agassiz in his illness, and Dr. Weber. Dr. Brown-Séquard was unfortunately obliged to leave for New York.

The examination was held to-day, and lasted upward of four hours. The brain and all the vital organs, especially the heart, were examined with great care. The stomach and liver, so far as yet appears, were free from disease; but in the heart were found evidences of the trouble with which the Professor suffered a few years ago. Special attention was paid to the brain, which was found to be very large and heavy, though its exact weight has not yet been determined. The quantity of blood in the brain was not unusually large—at least, not large enough to indicate disease. Careful examination was made of the base of the brain, and the physicians, though yet unprepared to give a definite opinion, seem inclined to regard this as the principal seat of the disease. The council determined, however, to bring to bear every resource that modern science furnishes. This will require a close microscopic study of the brain, and to insure success in this it will be necessary to allow it time to harden. Formerly in diseases of the brain a "gross examination," as it is termed, was made, and if a simple inspection of the organ revealed no disease, the examination was no further pursued. The microscopic methods, however, while they postpone the verdict, make the determination of much more value. After concluding their examination to-day, the several physicians divided their labors and made arrangements to continue their investigation, separately or conjointly, as the case may require.

Soon after the "attack," as the absurd statement reads, Dr. Brown-Séquard had diagnosticated disease of the base of the brain, and as the doctor has the reputation of being the greatest "nervous pathologist" living, it is important, in a merely professional point of view, to have the diagnosis confirmed, if possible. His associate physicians coincided in the apprehension that if the patient survived the "attack" of the disease in the base of the brain, and the repeated "attacks of congestion" (a phrase without any meaning), he would become a helpless and hopeless paralytic.

On the post-mortem examination, "evidences of trouble" were found in the heart. What trouble? What evidences? This is not the way scientific men should talk. These words have no definite meaning. "Special attention was paid to the brain," but no disease could be detected.

But still they "seem inclined to regard this as the *principal* seat of the disease." Then where were the secondary or subordinate seats of the disease? The simple truth is, the disease did not have any "seat" (diseases never do) any where. Nor was the base of the brain, nor any other part of it, diseased in any special or local sense.

But this is an important case. The reputation of seven eminent M.D.'s is at stake. Something *must* be found at or near the base of the brain, or somebody has made an egregious blunder. And so the brain is to be hardened (disorganized) and then examined microscopically. This will insure "diagnosis by result." If the brain is hardened hard enough, and the microscope magnifies diameters enough, the base of the brain will be found all right, that is to say, all wrong, and the diagnosis, treatment, and all other matters concerned, will be justified.

We shall await with some curiosity the result of "every resource that modern science furnishes." Meanwhile the diagnosis of the case, from the Hygienic stand-point, is as plain as the late financial panic. Both were owing to an *unbalanced circulation*.

Agassiz had become plethoric, clogged. He had given more attention to *ingesta* than *excreta*. Like the majority of learned men, including the majority of *learned* physicians, he knew little and thought less of maintaining the balance between what Liebig terms "the causes of waste and the causes of supply." He ate too much or too concentrated food, and disintegrated too little. His blood became bilious, thick, viscid, and obstructed the capillaries generally, and he died, as men in the prime of life are dying every day in the year—because neither they nor their physicians understand the first principles of the "SCIENCE OF HEALTH."

HOW TO GET WELL AND HOW TO KEEP WELL.—No. 2.

BY ERNEST WELLMAN, M.D.

FIRST PRINCIPLES OF THE TRUE HEALING ART.

It is not, however, our purpose here to enter into any examination of the fundamental principles of medical science; but simply to indicate the methods by which the sick may be restored to health, and the well preserved in health. We treat these two subjects under the same proposition, because they are intrinsically alike. Who knows how to get well, knows how to keep well; and who knows how to keep well, has learned the first and chiefest lesson in the art of getting well. The means to be employed in either case are precisely the same. There is not in nature any law of reversion. Results are produced only by appropriate means, and effects always correspond to causes. Good cannot be accomplished by evil agencies, nor evil result from good when properly applied. One may not do evil that good may come, simply because good cannot really come from

the employment of evil. This lesson of St. Paul is intrinsically true; for it is in accordance with every principle of science.

If a man would reach his destination, he must travel the road that leads thereto. If health is the goal that we are seeking, we must follow the path that leads to health. It is a wild superstition to imagine that we can reach our journey's end by traveling the opposite road—a superstition worthy of the midnight of the dark ages, but one which belies the intelligence of the nineteenth century. To suppose that we can attain to health by employing those agencies that destroy health, is so absurd that it seems wonderful that it should ever be harbored outside of a lunatic asylum. Every principle of science and common sense is violated in the belief. Every experience of life, when interpreted in the light of scientific rules, demonstrates its falsity. And yet men believe it nevertheless; the

ample proof that "a man may believe anything, no matter how absurd, if it has been sufficiently long taught."

The road that leads to health, is healthful habits and conditions. Healthful living is the only curative, as it is the only preservative. What brought man into life, and maintains him in existence, will keep him in life and health until, in the natural order of things, he passes away in a natural death—a death that not one person in ten thousand experiences; a healthful death, not a death by disease; a joyful death, not a suffering one; a sweetly sleeping process, rather than a painful effort; death by old age, because of exhausted power, rather than death in youth or prime of life, because of violation of nature's laws.

Disease is vital action in relation to things abnormal. It is an effort of the living system to relieve itself of obnoxious influences or abnormal conditions; and hence, to cure a sick person, all that is necessary is to remove those injurious influences, or abnormal conditions. "Remove the cause, and the effect will cease," is the hygienist's science. It constitutes the alpha and omega of hygienic practice, a point beyond which the hygienic physician cannot go.

The causes of disease are, or depend upon, improper relations of the living organism to external things; and, therefore, the only cure is in a proper relation. We are sick because we have done wrong; we must get well by doing right. Where our habits have been bad, we must make them good; where our actions have been false, we must make them true; whereas in times past we have been disobedient, we must now learn to obey. "Cease to do evil, and learn to do well," is the only condition of cure.

Human life is self-preservative, as it is self-constructive. The physician's medications can no more heal a human organism than they can manufacture one. All healing power, as well as all constructive power, resides in the living system; and hence, all that is necessary, in order to cause healing, as well as to cause growth, development or construction, is to fur-

nish the living principle with what it needs. The needs of the invalid is the only criterion of treatment. What the organism requires in order to its healthful action is all that should be supplied. Nature is the guide. Supply her with what she needs, and she will work according to law, and this is health. As water naturally runs down hill; as the tree grows upward, rather than downward; as man, by a law of nature, walks erect rather than on all-fours;—so the vital organism will work healthfully, if the conditions of health are supplied. If these are denied, she must work abnormally (if she works at all); and this abnormal action is disease.

The first question, then, that is presented to the mind of the intelligent physician, who is about to undertake the treatment of an invalid, is, What are the causes of his sickness? A diagnosis of causes is much more important than a diagnosis of effects. To be able clearly to distinguish the influences that made the patient an invalid and keep him sick, is of a thousandfold more consequence than to be able correctly to name the disease. Indeed, a correct diagnosis of the latter is important only to the extent that it reveals the former, and enables the physician to predict the results of his treatment. Treating disease according to name, as is the usual practice, is like the indiscriminate hoarding of coin (counterfeit or otherwise), simply because it is stamped with the eagle. Names are valuable only to the extent that they indicate nature, and the significance of either is chiefly shown in an analysis of causes.

Any attempt, therefore, toward a scientific elucidation of our subject, "How to get well and how to keep well," requires, primarily, a careful examination and classification of causes, and only secondarily a classification of diseases. Sick people are very much alike, no matter what may be the name ascribed to their particular sickness. A young lady came to me some weeks ago for examination and treatment. After a careful examination of her case, I told her she was

a very sick woman, but that she could be restored to health if she were willing to change her habits, so as to remove the causes of her diseases. She said Dr. A. called her disease dyspepsia; Dr. B. said it was incipient consumption; Dr. C. pronounced it bronchitis; Dr. D. was positive that it was heart-disease; she wanted to know what I called it. "If there is a sound organ in your body," I replied, "I don't know where to find it. You are simply a *very sick woman*, and that diagnosis will comprise a great many diseases." All the doctors were right as far as they went, and wrong only because they did not go farther. Dr. A. fed her tonics to cure dyspepsia; Dr. B. ordered cod-liver oil, with preparations of iron; Dr. C. tried remedies innumerable; while Dr. D. hardly knew what to do, for the case was very obscure; but finally, all concurred that there was nothing more to be done, for medicines had ceased to do any good. We treated her as a *very sick woman* simply; supplied the system with what it needed, and in three months she had gained twenty pounds of flesh, and she did not know what had become of her numerous ailments. For six years she had been a pronounced invalid; she is now well enough to work,

and sing and laugh all day, except occasionally, when she gets into a very brown study trying to find out what has made her well.

Reader, be assured that if you can find out precisely what made you sick, you will not experience great difficulty in deciding in general terms what will make you well, provided always that your constitutional vigor has not been so thoroughly impaired as to preclude the possibility of recovery. That medical men have exhausted their skill, and pronounced you to be beyond their jurisdiction, is no reason why you should give up in despair. The fact that you have swallowed a drug-shop or two, and yet live, is proof positive that you are so tough, and have inherited such a large amount of recuperative power, that under any reasonably correct habits, and moderately judicious treatment, you may recover a degree of health that will cause no one to marvel more than your former medical advisers. And, for your encouragement, let me say that at least one-half, perhaps three-fourths, of the thousands of persons who have recovered health under hygienic treatment, have done so after having exhausted the medical skill of all the established schools.

A TERRIBLE LESSON FOR MOTHERS.

BY BERTHA DAYNE.

MRS. PRAY'S preparations for winter had been a trifle delayed this season, by reason of a little circumstance, which made an arbitrary division of her time impossible. A *little* circumstance, to be sure, but do we not all know that many of the fateful events of our lives have swung into our experience upon a very little hinge of circumstance? Have we not known new-born souls trembling upon the threshold of life, to have heaven or earth decided for them by a touch, a breath? Have we not seen the issues of human destinies decided, and the existence of unborn generations shaped, by a maiden's caprice? Have we not seen

flickering lives blown out, and other lives gone down in the night of sorrow, because of a cloud over the sun, a summer shower?

Mrs. Pray always intended to have her preparations for winter completed before the first cold snap. For she was a pattern housekeeper, and had sovereign contempt for those slack ones of her guild who are perpetually being overtaken unprepared by the exigencies of spring cleaning, summer sewing, autumn preserving and pickling, and winter's duties of pie, meat, and fruit-cake. But accidents will happen, even in families so rigorously governed by the line and

plummet of habit as hers, and it was by reason of an uncalculated-upon little circumstance that her labors this year were so intermingled, one season's with another's.

The little circumstance which had exerted such a disturbing influence among her domestic calculations, at this moment lay in the cradle near the table where she worked. I say it lay there, because I dare venture an assertion where I should shrink from an affidavit; for no human eye could detect aught resembling a baby's form beneath the shawls and blankets with which the cradle was filled. Faith, not sight, must tell that among those pillows was the tiny sprout which might grow either to oak or to upas; to a maturity of dignity and beauty, or to one of gloom and desolation; to the grandeur of a cedar of Lebanon, or the blight of the unfruitful fig-tree. It lay there, still and motionless, and only a labored breathing, deepening occasionally into a sound almost a moan, interrupted Mrs. Pray's murmured mathematical calculations of pints to pounds, of so many eggs to so much butter, etc.

This child in the cradle was the fourth that had come in the five years of Mrs. Pray's marriage. And it came to her just as her babies always came, at the very busiest time of her housekeeping, and came more as a cross to gall her shoulders and cramp her arms, than as a crown to glorify her wifehood. She had planned such a mountain of work for this season, such stacks of quilts to be quilted, quantities of rags to be sewed into carpets, visits to be made and received, children's clothes to be ruffled, frilled, flounced and fluted, that it did seem a most arbitrary intermeddling of fate with her destiny, when she found her arms were to be filled with another little sniffing crimson image, which, though seeming so impotent and fragile, might yet have the power to make abomination of desolation with all her domestic plans.

The neighbors, as is the wont of neighbors in districts where the roads trim door-yards like broad brown ribbons,

where perfumed thickets separate garden from garden, and where the only street lamps are the stars, interested themselves much in Mrs. Pray's mental experiences relative to this fourth new-comer. And, as is the neighborly habit, they each sat in judgment upon her spiritual condition. So easy is it to weigh the souls of our fellow-beings! so easy is it to measure in the procrustean couch of duty the futilities and insufficiencies of other spiritual growths than our own!

But, however divided the gossips were upon every other issue of the case, as to whether it were natural or unnatural for Mrs. Pray to feel so unreconciled to the debut of another little one in her family; as to whether a woman hadn't just reason for chagrin and dismay when babies were added to her household with the periodicity of falling leaves; as to whether a mother and wife could do an unbridged duty to the other children and their father when the great marvel of creation was wrought anew in her each year;—they were almost unanimous in their admiration of the accomplished manner in which Mrs. Pray always "turned off" her children.

Mrs. Sure avowed that she had spent the whole afternoon at Mrs. Pray's house "time and again," and found that the then baby of the family was never taken from its cradle, but slept hour after hour, without a whimper or a cry from her visit's beginning to its end. Mrs. True asseverated that she had known Mrs. Pray to go shopping, leaving the three children alone in the house, fast asleep in the cradle and on the bed, to find them just as she left them upon her return hours afterward.

Mrs. Still was able likewise to add her corroborative testimony as to Mrs. Pray's marvelous ability in making her children keep out of her way; for she had often dropped in at her house of a morning, and had found her with her breakfast dishes washed and her kitchen in order before one of her three babies had waked from its night's sleep. So, taking it all in all, the feeling of the committee was that if any woman in the world had little

reason to regret her maternal fertility, that woman was Mrs. Pray.

To be sure, Mrs. Lovewell did venture timidly to inquire if the ladies present thought it, after all, so desirable a thing to have children who seemed never fairly awake, and who maundered nervously through the few waking hours they saw, as if open eyes and partially alert senses were abnormal to them, while their eyelids were always heavy with sleep, and their tongues thick from impending slumber? Was it not a misfortune, rather than otherwise, that while the other babies of the neighborhood were toddling about from garden to garden, from door to door, falling into mischief and encountering disaster about as often as the clock struck, tumbling under foot and wearing motherly patience threadbare, yet growing brown and healthy and handsome with every moment of sunshine, the poor sleepy little Prays should be tucked away into a dark bedroom, forbidden to cry, and seduced into perpetual somnolency?

But Mrs. Lovewell, poor little woman, had mourned for many years that she was one to whom love only gave children, while nature withheld them, and though her mother-heart could tenderly brood the whole universe of little ones, her home was not cheered by the presence of sunny, childish faces.

So the other ladies smiled benignly upon her somewhat deprecatory words, yet said in their hearts: "What does *she* know about it? she never was a mother!

So hard is it for the fleshly vision to discern a spiritual truth, the solemn verity that many a woman whom childish voices call mother is as barren and sterile in the spirit-love, which alone is the soul of true motherhood, as if she had never known the physical pangs of maternity. And many a woman's heart overflows with every sweet affection, and is wise with all the deep thoughtfulness that makes motherhood holy, who will never hold her own earth-children upon her bosom.

Some women are *born* to the gracious estate of motherhood; and for such it

seems as if the culture and discipline of rearing children was not necessary to the rounding out of loving lives, so they are often childless, save as all children are theirs. To others the dignity and beauty of Cornelia among her jewels comes only with the perils and the pangs of actual maternity, while, alas! to others no true motherliness is possible, though their homes are full of little ones.

In spite of Mrs. Pray's accumulation of work, and of her strong disinclination to put aside her quilting, rag-sewing, trimming, etc., the baby came. And I have often noticed it as an idiosyncrasy of babyhood, that they have no amiable scruples against coming into the world at the time and under the pressure of conditions least favorable to their being welcome. And so Baby Pray came a month before she was expected, in a dark night when the rain was descending in torrents; when the doctor of the village was absent in attendance upon the Medical Convention; when nurse Brovont was laid up with rheumatism; when the late tomatoes were picked and waiting in the cellar to be pickled; when the grapes were shrinking with impatience to be canned; when bushels of crab apples were fading in the "cool-room;" and when the flour was all browned and the raisins all stoned for the fruit-cake.

So, on the serene autumn day on which Mrs. Pray was busy among her sweets, the occupant of the cradle had journeyed three weeks into life, and the mother was putting forth her utmost strength to make up to her household cares the precious time lost upon the baby's birth.

Johnny and Charlie, the older children, were ranging in a dazed sort of fashion, somewhat as the eyeless fishes of subterranean lakes might float upon the surface of day-illuminated waters, through the flower-garden behind the house. Now and then a sound, evidently some ghostly similitude of an active, jubilant boy's merriment, crept in at the open windows; but such sounds were only occasional, for the two boys lived their days as well as their nights in a mysteriously solemn silence. Susie, the thirteen-

months old baby, was hidden away in a sepulchre of pillows, in the dim twilight of a close bedroom, deep in a dreamless sleep. Her little white lips were parted, showing two darling pearls of teeth, against which her breath dashed itself with an irregular, whistling sound, sinking back each time as if baffled of its intent to escape, only to rise and fall again, and again, and again.

Two babies asleep, and two drifting about among the ripened leaves in the garden, as quiet and almost as void of all mercurial life-currents as they; truly, it would seem that Mrs. Pray had very little reason to complain of her children. Do not understand me to intimate that she was an unloving mother, a modern Herculia, who could in cold blood expose her babes on mountain-tops of neglect and indifference. No, indeed! the many weary nights during which she had sorrowed with anguish unutterable over her children, as they writhed in spasms or moaned with pains indefinable, proved that the love existed, though somewhat smothered under Pelion upon Ossa of housework. She was supremely ambitious that no children should have prettier raiment, richer embroideries, or more elaborate ruffling than hers. So, also, was she determined that no house should be kept with a delicacy of neatness more nearly approaching to that of a fairy's abode in the heart of a lily than hers, and that her table should always be such as to tempt an anchorite, who had forsworn feasting, into deadly peril of his soul. But to feed all these ambitions took so much strength that she seldom found time to give to the sweet witchery of childish companionship, to learning the charming *patois* of babyhood, to warming her heart against the pure cheeks of her children.

She could not serve God and mammon.

As she was busied among her cooking utensils, flitting hither and yon, with a quickness which proved her conviction that the art of cooking is long and the time to dinner is fleeting, an expression of intense annoyance settled upon her rather sharply-chiseled features. She

tossed fruit and sugar together with the celerity of a sleight-of-hand conjurer, looking impatiently as she did so at the cradle, where gasps and snuffles were growing portentously audible.

"Waking already!" she exclaimed, addressing some invisible person in the depths of her preserving kettle, "what a nuisance! and I have a good half of my work yet to do before John comes to dinner."

It was evident that no magnetic current of sympathy was yet established between the busy, ambitious mother and the occupant of the cradle. For, utterly regardless of her intense desire, which came almost to be a prayer for more time, the babe grew more and more restless, till its spasmodic noises finally were united in one melancholy wail.

Mrs. Pray approached the cradle and chirruped lightly to the mass of tangled features within. But the scarlet princess had not come long enough to her kingdom to learn that flattering accents and soft beguilings are all of loyalty some monarchs receive, so she repudiated the empty offering, and continued to cry for a homage involving more of self-abnegation. Just then, the syrup boiled over upon the stove; the oven-damper suddenly dropped down, exposing savory loaves of cakes to scorching temperature; the kettle of piccalilli evolved from its bosom fumes of burning; the clock struck ten, showing just two hours before dinner; Susie woke with a cry from the inner room, while the baby put all her little force into shrill howls; till the mother, amid such a concatenation of perplexities, grew desperate.

"Potatoes and squash to be prepared for dinner; beans to be shelled, and the stove to be cleaned of all this pickling and preserving before twelve o'clock!" she groaned, with a hot flush of ill-temper; "was ever a poor woman in this world so harassed with babies as I am?"

Babies, did you say, anxious and careful mother? Did you mean babies, or preserves? children, or pickles? clinging, helpless souls, which but for you might never have entered the thorny laby-

rinth we call life, or cakes? babies, or "much serving?"—which *is* it that cumbers you?

Just at this juncture the little three and four years old boys came in from the garden, heavy-eyed, and with a pallor sorrowful to see upon infantile features.

But the mother was too familiar with the peculiar leaden paleness of her children to ask any questions as to its probable cause, and although Charlie complained of a "big noise in his head," and Johnny laid both hands significantly over the front breadth of his gingham apron, over the region where pain held oftenest its riot in his body, she had no time to spare for petting and coddling them. But she drew the cradle away from the warm kitchen into the room where Susie lay, and hurriedly rolling a raisin in a milk-sopped rag, thrust it into the infant's mouth, bidding the little boys at the same time to amuse their sister, And thus she left them, for she was joined to her idols.

The clock was striking twelve when John Pray entered the house. Before he reached it, however, his 'olfactories were saluted with overwhelming proof that his wife had been offering her oblations to the domestic deities with zealous devotion. But, strangely, his face didn't brighten with pleasurable anticipation of the good things she had compounded for his winter's delectation. On the contrary, he looked far more the Spartan than the Sybarite, as, with anxious, clouded brow, inhaling odors of sweets and spices, he sadly thought, "She is at it again! I wonder how the poor babies are faring?"

"She" had just cut her finger rather severely, having broken a few bottles of the many which she had hidden securely away under the sink.

Several of these she had broken in adding two new ones to their number, while considerably flurried by her husband's return a few moments earlier than she had expected him. They were innocent-looking bottles enough, colorless, empty, and without labels. That they were labelless happened because it was her prac-

tice always to tear every word that should betray their character from them, before she ever removed the corks. But, had the contents been symbolized in characters patent to the sight, each one would have borne a hideously grinning skull, with cross-bones beneath. They were empty because death had been dealt out from them by the teaspoonful; they were hidden with the utmost secrecy, because the very sight of them threw John Pray into the fiercest paroxysms of fury that his placid temperament ever knew.

The husband upon entering the kitchen found the dinner sending up appetizing odors, while through the open door to the dining-room he saw the pretty picture of a table spread with the purest drapery, with shining white dishes, and an abundance of glass, gleaming and spotless. But he made no pause, either to admire the æsthetical element of his wife's nature, which cropped out so vigorously in the direction of household effects, or even at the sink to wash his hands. He merely said, in sympathetic voice, "How did you manage to cut your finger, Mary?" then becoming suddenly conscious from his wife's manner that he had touched upon another of the innumerable secrets with which his domestic peace was undermined, he simply added:

"Where are the children?"

"Playing in the bedroom," she answered, somewhat shortly, not finding it binding upon her conscience to add, "where I left them two hours ago, and haven't seen them since."

So, while she wrapped her wound in linen rags, the father sought his babes. Only a moment passed, and she had not yet finished binding up her cut fingers, before she was electrified into a sudden consciousness of some horrible fear, by the sound of her husband's voice in an unnatural cry. For another moment her feet seemed rooted into the floor, for his temperament was so much the reverse of excitable, bore so vividly the congenital mark of a lymphatic mother, that a cry like this from him was as awful to her as the wail of the Banshee to a benighted stumbler among treacherous

bogs. Then she threw off her paralysis of affright and hurried into the darkened bedroom, where the windows were always close shut lest a sound penetrate to arouse the sleeping children, who were crushed thus beneath her Juggernaut car of housework; where the blinds were always closed, lest a ray of light creep under their closed eyelids and shorten their stupor, and where the air was sickening with its putrescent lifelessness, buried as it always was in foul odors of feather beds, human breaths, curdled milk, and fœtid ghosts of many day's cookings. This little bedroom was the crypt of a multitude of noisome odors; but more dreadful than the loathsomeness of all the dead smells was the one horrible vital one which, ghoul-like, rioted among them. It made Mrs. Pray's heart swoon in her bosom as she encountered it; it made her brain reel with terror as she groped her way into the darkened room. As she stood an instant in the darkness, unable to see into the gloom, and only conscious of this deathly smell, she heard a hoarse voice, which she could never have recognized as her husband's, utter in anguish:

"Woman, what *have* you done?" and then a dusky figure rushed past her with a white burden in its arms.

When finally her eyes grew accustomed to the twilight, the sight upon which they fell was one to make her almost cry for eternal blindness; one to make her pray in an inarticulate agony that sight and sound and feeling might forevermore be blotted out of her life. For on the bed, breathing as only those breathe who buffet the threatening billows of death, with mouth widely unclosed and with parched tongue protruding, with glazed eyes half unclosed, and a corpse-like pallor on her face, lay little Susie. Nearer the foot of the bed, outstretched as if prepared for their graves, were the two little boys, deep in a lethargy which was more like death than like death's twin-sister, sleep.

Near the centre of the bed was a dark stain, blacker than blood, more fatal than the stain of a buried bullet or of a severed

artery, sending up from its terrible form the deathly smell which filled the room. Near to this stain was one of those bottles of which Mrs. Pray had such a hidden store, empty, colorless, and without label, but vomiting liquid death in a small dark stream from its narrow mouth. *This* was what Mrs. Pray saw; and in the darkness which then fell upon her she forgot that her pickles had just the perfect shade of green, the perfect excellence of taste; that her preserves had turned out to be of the richest and rarest; that her fruit-cake stood on her kitchen table, brown and fragrant, a paragon of excellence among cakes; that her table was a picture, and her dinner a gem of its kind! She forgot all, everything; forgot that it was day, and the sun shone; forgot that her breath came and went in gasps, forgot that she was not turned to stone; forgot all, everything save the dreadful truth that little Charlie had found the Soothing Syrup bottle under the baby's pillow; and, in imitation of his mother's daily habit, had given of its contents to his baby sisters and brother before swallowing a portion himself.

What then followed, my heart fails me to tell. Of the black sorrow which fell upon that household, I have not words to speak. Of the sharp pangs of remorse which thrust themselves into that mother's heart unceasingly for years, till her grave gave her blessed peace, I shudder to think; of the grief which haunted the life of the father, long after his hair was white, and the lightness of youth had deserted his footsteps, I cannot speak for tears.

Two little graves were added to the marble city where slept the dead of the village, and Mrs. Pray's labors suffered less interruption from the voices and needs of her children. But the life had forever exhaled from her once dominant ambition, so that the neighbors came at last to pity her as one who was shamefully neglectful of her housework, and who lived, moved, and had her being in the lives of her two children.

And such a solemn silence broods yet over the dreadful secret by which those

innocents fell on eternal sleep, that to this day the two boys do not know that their little hands opened the doors of death for their baby sisters, or know how far within the chill presence they crept themselves. But as deep into their consciences as the laws of love, truth, and justice, is inwrought an undying hatred

of narcotics; for with the commandments of Sinai their sad-eyed mother taught them, "Thou shalt not stupefy the brain with poison," and she taught them also with the sweet beatitudes, "Blessed are they which give the strength of their days to their children, for they shall meet them in heaven."

OCCUPATION AS AFFECTING HEALTH.

Farmers—Millers—Paper-Makers—Machinists—Potters—Fishermen—Ditchers—Bath Assistants—Soldiers—Sailors—Tailors—Seamstresses—Clerks—Accountants—Copyists—Storekeepers—Shopkeepers—Porters—Runners—Blacksmiths—Carpenters—Joiners—Convicts—House Painters—Factory-Operatives—Masons—Plasterers—Workers in Metals—Printers—Practical Chemists—Miners—Colliers—Soap-Makers—Tallow Chandlers—Boilers of Oil—Scavengers—Street-Sweepers—Grooms—Hostlers—Idlers.

It is acknowledged by all that the mode of life a man follows exerts an important influence on his bodily health. While some of the occupations tend in a powerful manner to build up the system, and to maintain, for a long course of years, firm and enduring health, others are in their very nature unhealthful. Every calling has certain advantages and disadvantages connected with it peculiar to itself. I therefore submit a few remarks on the occupations that engage the race.

THE FARMER.—Agriculture and horticulture would seem to constitute the most healthful employment. The farmer is exposed abundantly to pure air, that is, the purest in the locality where he may happen to live. He is not under the necessity of exposing himself often to storms and rain. The regularity of his calling adds to his chances of health; neither is his brain worried or overtaxed, as a general thing, and his labor in the open air is sure of giving him a good appetite, digestion, and capacity for sleep. He needs no fashionable expedients for killing time. But notwithstanding all these advantages of the agricultural life, farmers generally subject themselves to several serious drawbacks. Their houses, and in particular their sleeping-rooms, are not usually as capacious as they

should be. Especially at night do farmers suffer for want of pure fresh air. The small bedrooms in which they "stow themselves away," are altogether unfit for the purpose of breathing and sleeping. It is no wonder that they are so often troubled with nightmare and disturbed sleep. If farmers would sleep in air as pure as that in which Methuselah did, to wit, out of doors, their repose would be as sound as that of the most healthy child. Besides, farmers treat themselves badly often in the way of diet. They eat not only too much in quantity, but of the grosser forms of aliment; and tea, coffee, and tobacco—I am ashamed for our country to own it—generally come in for a full share. The water they use is generally hard, and altogether unfit for the purposes of health. In winter time, also, they suffer a vast deal from their overheated and unventilated rooms, especially since stoves have come into use.

So healthful an employment do I consider tilling the soil to be, I would recommend that every one who can possibly do it, should cultivate a piece of ground, even if but a small one. It is not only pleasing to the mind to witness the growth of crops coming from one's own exertion, but it conduces to health in every respect.

MILLERS, PAPER-MAKERS, MACHINISTS, and all whose occupation exposes them to an atmosphere loaded with dust, are liable to irritation and inflammation of the respiratory organs, and consequently to asthma and consumption. Those who are obliged to follow a calling of this kind should go into the open air as often as

possible, and pay particular regard to the air of their sleeping and other apartments. Bathing, and frequent frictions upon the skin to keep it in an active respiratory state, will also be of service.

POTTERS are liable to injury from dust, but more especially from the chemical gases to which they are subjected. Lead-colic and paralysis arises among those of this calling from the fumes of lead to which they are often exposed.

HOUSE-PAINTERS suffer not only from the action of lead to which they are subjected, but from inhaling constantly the fumes of spirits of turpentine. They are generally a pale and sickly-looking class, often dyspeptic, and not unfrequently have lead-colic, inflammation of the bowels, paralysis, rheumatism, and nervous complaints. We seldom see one who has followed this occupation regularly much advanced in years. If health is to be measured by money, a house-painter should have at least double the wages of ordinary laborers.

FACTORY OPERATIVES are compelled to breathe an atmosphere that is always more or less impure from the dust necessarily connected with factory operations, rancid oil, and in winter from a temperature too high. Too many hours, also, are enforced as a day's work in factories generally. But the *regularity* of the factory system—the early rising, the punctuality at meals, and the plain fare—these are the advantages of factory life.

MASONS AND PLASTERERS are liable to injury from the dust and stony particles to which they are exposed, and the caustic quality of lime.

WORKERS IN METALS are exposed to dust, such as iron filings, etc., which is always more or less deleterious to the air passages, and in some cases also to chemical gases used in refining metals. These are harmful, in many cases, in consequence of their poisonous properties. All workers in metals of a poisonous character should keep the hands and other parts of the person as cleanly and free from them as may be. Experiment proves that these poisons act by *absorption at the skin* as well as in the lungs;

and some hold that there is a greater liability to harm in the former than the latter way.

PRINTERS are liable to harm from the too confining nature of their calling, and sometimes suffer from lead symptoms, the metal being received into the system from the types used. They ought never to hold the types in the mouth, and the office should be as well ventilated and lighted as possible.

PRACTICAL CHEMISTS are very liable to become sickly from the fumes of various poisonous and deleterious articles which they cannot wholly avoid. Much depends upon the arrangement of the laboratory as to ventilation; but I think it will be found that nearly all of those who engage themselves constantly in chemical operations are pale and sickly, and liable often to be stricken down with serious disease.

MINERS AND COLLIERIES are injured by want of light, dampness, foul air, and the particles of dust to which they are exposed. *Miners in mercury* are, of all laborers, most to be pitied. Fallopius has asserted that those who work in mines of mercury seldom live above three or four years. Pulmonary consumption, general wasting, and the worst possible forms of nervousness, a host of ailments, surely, and of the most dreadful and destructive kind, are caused by inhalation and imbibition of this poisonous metal.

SOAP MAKERS, TALLOW CHANDLERS, BOILERS OF OIL, as well as all who work among putrid animal substances, are apt to be troubled with nausea, vomiting, and indigestion, if not to more serious ills. Ventilation and personal cleanliness may, in such callings, be brought in as material helps. But loathsome as putrid animal matters are, their ill effects, when breathed, are small in comparison to those arising from mineral poisons.

SCAVENGERS AND STREET SWEEPERS must suffer more or less always from breathing dust and various filthy and pestilential emanations unavoidable in their calling. In breaking holes into old privies, scavengers are sometimes struck down as if dead, by the sulphureted hy-

drogen gas which escapes from the opening. Hence caution is required in this disgusting but necessary avocation.

GROOMS AND HOSTLERS are liable to some harm from the dust arising from cleaning animals, carriages, etc., but the ammoniacal gases coming from the manures they are compelled to breathe are not found to possess any peculiarly noxious properties. Those who follow this calling seem generally to enjoy a good degree of health.

FISHERMEN, DITCHERS, BATH ASSISTANTS, and such as have their extremities exposed much to cold and wet, are very liable, particularly when they commence this kind of life, to have boils and felons on the parts upon which the water most acts. Some who are already in disease, or strongly predisposed thereto, are harmed by such occupations; but others, on the contrary, are benefited by them. Those who are obliged to follow callings of this kind, should always see to drying themselves as soon as possible after their work is over.

SOLDIERS have some advantages over ordinary persons, for they are compelled to observe regularity in many respects. But in times of peace they are apt to become dyspeptic for the want of something to do. Altogether the soldier's life is not a desirable one, so far as health is concerned. All authorities agree that the life of the soldier, even in times of peace, is unfriendly to longevity.

SAILORS are not proverbially a healthy, although a hardy race. They undergo much that tends to give them muscular vigor, and at the same time much that is against them. Their hours for sleeping are necessarily very irregular. But, worst of all, are their habits of intemperance and licentiousness when on land. Jack ought to be a healthy man, but too often he is far, very far from it.

TAILORS are a very unhealthy class. They suffer from dyspepsia and constipation, if from no worse ailments, as certainly as the trade is followed steadily for a few months. If a tailor would rise sufficiently early, go to rest early, and observe good general habits throughout,

he might do, day by day, a fair amount of work. But tailors do not, in general, manage in this way. Perhaps the pay they receive is not sufficient to give them time for the required relaxation and rest. We seldom, if ever, see an old tailor.

SEAMSTRESSES are in a still worse condition. Their pay is often unreasonably small, and fashion does not allow them to go out for exercise anything like as much as nature requires. Reformers have here a great field for work.

CLERKS, ACCOUNTANTS, AND COPYISTS are liable to suffer from the too sedentary nature of their occupation, from bad air, and want of light. One who is obliged to write a good deal should sit and stand alternately; this will be found much better than to adopt either position constantly. But if one position only can be chosen, it should be the standing, rather than the sedentary.

STOREKEEPERS, SHOPKEEPERS, and the like, have the same difficulties to contend with as clerks and accountants, only they are not confined so much in one position, and their brain work is also much less.

PORTERS AND RUNNERS, who are obliged to lift and carry very heavy burdens, are forced to inhale air with undue violence, by which the delicate air cells of the lungs become overstretched and sometimes ruptured, the effect of which must be a hemorrhage, greater or lesser. Other viscera, also, are liable to injury in the same way, and the health of many a one has been forever destroyed by a single strain. Hippocrates mentions the case of a man who, upon a wager, carried an ass, upon which he was immediately seized with fever, vomiting of blood, and rupture.

BLACKSMITHS are sometimes injured by being obliged to put forth too great an effort of strength. The dust to which they are subjected is also a source of harm. The intense light of the blacksmith's fire and heated irons is certain of causing injury to the eyes in the end.

CARPENTERS AND JOINERS may be said, for the most part, to have a healthy occupation. True, their work is sometimes too hard, and they are, at times, obliged

to breathe a good deal of dust. None but those of the strongest powers should be put at the harder parts of blacksmithing and carpentering.

CONVICTS, as kept in our State prisons in the North, and in the South of our country, are generally remarkably free from the outbreaks of disease. Not a few, if I am rightly informed, are cured of dyspepsia and other chronic ailments, by the discipline and regimen to which they are subjected; and this notwithstanding the moral and mental drawbacks that necessarily attend their situation. They are made to go to rest early, rise early, work at regular hours, and eat plain, but sufficient food. We hear of epidemics, such as cholera and dysentery, prevailing in the locality of a prison, but the convict is almost certain to escape. Now all this speaks volumes in favor of temperance, simplicity, regularity, and regular employment.

IDLERS generally have very poor health. Of all hygienic misfortunes, that of hav-

ing no employment is the worst. A poor man is to be pitied, but an idler much more. The most inveterate cases of hypochondriasis among men, the most intractable cases of hysteria among women, and the worst forms of dyspepsia among both sexes, are to be found among those who have no regular employment. Men make fortunes and retire from business, expecting thereby to get great enjoyment. But they find themselves mistaken. They tell us they were better off, in every respect, when actively employed. Man was made to gain his bread by the sweat of his brow; that is, to be active, mentally and bodily. Said Richter, "I have fire-proof, perennial enjoyments called employments." Every one who desires health should keep himself regularly engaged at something which will call forth and exercise both his mental and corporeal powers. If he must go to either extreme, it is better it should be that of doing too much.—*Family Physician*.

IMMORALITY AND INSANITY.

BY C. DEDRICKSON.

THE intimate relation between immorality and insanity is one that can scarcely be pressed too closely upon general attention. We are not now referring to the special vices of self-abuse and venery, which are directly accountable for failure of intellect; but the general moral laxities, which are too frequently, if condemned at all, only condemned because they are not politic.

Dr. Maudsley says that, "as insanity in one generation may produce an absence or destruction of moral sense in the next, so, conversely, absence or destruction of the moral sense in one generation may be followed by insanity in the next." The moral portion of the brain is the crown, and the destruction of its fine apex can be easily effected; but not without injury to the entire intellect. It is a known fact to the psychologist, that the first indications of insanity are ap-

parent in the moral actions. There is a laxity of tone, a less regard for strict honesty, a giving away to lying, the indulgence in lewdness of action and conversation, and then comes the more unmistakable decay of the intellect. It is also known that after insanity, even when a complete recovery has apparently been made, the moral faculties are never as clear and perfect as before the inception of the disease. The broad action of the mind may be restored; but the delicate poisoning has been irrecoverably destroyed.

It is not enough that we should be honest because it is the best policy. We should be honest because it is right. We should not be satisfied if our actions escape the penalty of the law of the land, but look at the heritage that our secret sins may prove to our offspring. Dishonest thoughts in this generation, if unchecked by judicious training, will give

rise to dishonest action in the next; the moral sense is weakened, then destroyed, and, to complete the cruel work, insanity accepts the throne vacated by morality, and gibbers above the ruin! A striking illustration of this is given by Maudsley, in the essay from which we have already quoted. During the French Revolution an innkeeper made it part of his trade to lure Royalists into his tavern, and murder them for the sake of the jewels and money on their persons. His children all died by their own hands during insanity, and their offspring were idiots, showing the three degrees—immorality, insanity, idiocy!

This intimate relation between our very thoughts and their consequences upon our sanity is a very serious consideration. If we reflected for one moment that the immoral idea, even before it is

born into open sin, is sapping our intellectual force, that the lewd action and the indulgence in evil will not end with ourselves, but may have terrible consequences for our unborn children; surely the thought should make us pause, and induce many a man and woman to live purer lives.

We know of no greater and more terrible punishment than the loss of intellect; we can offer to no objects more heart-felt pity than to the insane; yet how seldom do we reflect that the idiotic and the mad are beings of our own creation. It becomes us no longer, with the light of science teaching us, to look upon these helpless creatures as the afflicted of God, deprived of their reason by his mysterious providence. We must regard them as our own work—terrible monuments of our own immorality!

DOCTORS AND DRINK.

"Go search the hospital's unwholesome round,
The felon's dungeon, and the maniac's cell,
The workhouse cold, the church-yard's dreary mound,
And learn what suicides history can tell.
Ask what does most the stream of victims swell?
And Truth shall answer, with a look forlorn,
Intemperance, greatest curse since Adam fell,
Parent of ills, Perdition's eldest born—
Dark cloud without a bow—a night that knows no morn!"

THE persistency with which medical men continue to prescribe alcohol to their patients is a subject, to use "Lord Dundreary's" pet phrase, "No *fellah* can understand." They know, or ought to know, that it is a dangerous stimulant; that it robs the blood of oxygen; lowers vital heat, and predisposes the system to zymotic disorders and plagues. They know, or ought to know, that spirits, wine, beer, etc., furnish no element capable of entering into the composition of blood, muscular fibre, or any part which is the seat of the vital principle. They know, or ought to know, that the habit of drinking imperceptibly leads thousands to premature deaths and drunkards' graves.

All this being so, how is it that so many doctors persist in recommending alco-

hol, in its varied forms, to those who consult them as to their health? Can it be that they close their ears to the voice of experience and turn away their eyes from the sad effects of their mistaken—shall I say guilty—practice? Or can it be that, knowing many of their patients like the "medicine," they criminally pander to their vitiated tastes? I know one medical man who is honest enough to say, "I prescribe alcohol to my patients because I know it will gratify them." Oh, is not this criminal in a high degree? Another doctor used to say, "I have nothing better on my shelves for many diseases;" and his "cure-all" was "good whisky, diluted with water." When a teetotaler consulted him, he made a point of strongly recommending drink; it gave, he said, "nature a lift," and he was in the habit of boasting as to the number of teetotalers he had induced to break their pledges.

"O for a whip in every honest hand
To lash such rascals through the world."

This subject has long occupied my attention, and from time to time I have met cases which roused my indignation

against those medical men who, notwithstanding the teachings of science and the warnings of experience, continue to prescribe intoxicating drinks as a cure for disease. Take a few "Jottings from my Journal." I shall give you *facts*, for, as Burns wrote long ago,

"Facts are chiefs that winna ding,
And darna be disputed."

Some time ago a hard-working printer consulted Dr. P—. "I am very weak and poorly, doctor," said the visitor.

"What ails you?"

"I feel a general depression—scarcely able to go about—and I have no appetite."

The doctor put his hand on the man's wrist and made several inquiries.

"I'll give you a bottle. Have you been trying anything for your appetite?"

"Yes; I was recommended to take a little whisky and water before dinner; but I think it is doing me harm, and I'm afraid I might come to like the 'medicine.'"

"Stuff! you could not take a better thing. I always take a glass every day at dinner, and it does *me* good. Get old whisky, and if you find it imparts a relish for food, take it regularly."

Exit patient, after paying his guinea.

The printer followed the advice. Every day, on an empty stomach, he took a glass of grog. In a short time he could not eat a bite without it. In six months he took the "medicine" too frequently, and ultimately he became a drunkard. With a shattered constitution, he found his way one night to a Temperance meeting, and signed a pledge to take no more "medicine." Shortly afterward Messrs. Fowler and Wells visited the town and he attended their lectures, from which he received great benefit. He now thoroughly indorses Shakespeare's lines:

"Give physic to the dogs—
I'll none of it,"

and is enabled by proper food, fresh air, exercise, etc., to keep himself in a good state of health.

FACT NO. 2.—A young woman, with a very weak chest, consulted Dr. W—. She received a prescription, and was told, when she had difficulty of breathing, to take a little whisky and water. Although

I cannot write "M.D." after my name, I could have done better than this for the sufferer. She slept in a close, badly ventilated room, the window of which was kept closely fastened by a foolish mother, "lest Mary should get cold." She wanted proper food, instead of a strong decoction of tea, which she drank sometimes three times a day; and she required exercise under the blue sky. Fresh air, proper food, and exercise would have given tone to poor Mary's system. Instead of this, she took the drugs and the drink—by the way, she became too partial to the latter—and at twenty-five years of age she was laid in her grave, another victim to alcoholic medication!

FACT NO. 3.—One day a hard-working sub-editor was busy selecting and arranging "copy" for the following morning's publication, when who should drop in but Dr. M—.

"Good morning, Mr. —."

"Good morning, Doctor."

"Can I have a few proofs of my letter, which is in type?"

"Oh, of course, Doctor; you know we are always happy to oblige you. Take a seat, Doctor."

"By the way, Mr. —, you do not look well to-day!"

"How can I look well, Doctor? Shut up in this close room till three o'clock every morning, and worried to death all the time. It would take a man of steel to stand it!"

"You should take some stimulant. You need it."

"I know it, Doctor! But *what* shall the stimulant be? If I had a month to wander in green fields and by babbling brooks, with country fare, I would soon be all right."

"I would recommend you to try claret. Your blood needs it."

"I am afraid, Doctor, the claret would not do me good. Besides, I am quite sure it would not agree—*with my purse!*"

"Oh! good claret is cheap now, and you could not take a better thing."

"Ah, Doctor, alcohol is no friend of mine, and I'm resolved never to taste intoxicants of any kind."

"Well, I think you're wrong. Dr. Miller, late of Edinburgh, considers alcohol a most important and valuable medicine."

"Dr. Miller was a great man, but he was not infallible, and I know that some of the leading medical men in England and in America regard the prescription of alcohol, you will excuse me, Doctor, as a quackery."

"Oh, nonsense!"

"I beg your pardon, Doctor. It is good sense."

"Well, a little porter—Guinness's XXI.—might do you good."

"Not a drop of Guinness's porter for me, Doctor! Were you ever in the brewery at James's Gate, and did you not ever see the myriads of rats that are daily taken out lifeless from the huge vats?"

"No, never."

"Well, Doctor, I have seen both the brewery and the rats, and no rat-broth will ever enter my stomach. God has given me, in the fresh air of heaven, the glorious sunshine, active exercise, bathing, and simple, suitable food, all that I

need, and I am content. What I now need is not claret or porter, but rest and change of air."

"Well, I see that you are incorrigible. You will not forget the proofs. Good morning." Exit doctor.

The sub-editor was determined he would not be narcotized. A few days in the country gave him the required tone and he is now an active man, using neither drugs nor alcohol, and eschewing everything injurious, either as food or drink. Had he listened to the advice of Dr. M—, he might now be a drunkard, or in his grave.

Knowledge is spreading rapidly, and from 389 Broadway a flood of information is being sent to all parts of the world. I look upon the days of druggery as numbered, and I am pretty sure that in a very few years no medical man, with a reputation to lose, will so far forget himself as to prescribe intoxicants to patients. Success to the SCIENCE OF HEALTH.

W. C. B.

THE CANDY CURSE.

[ONE of our valuable contributors, Mrs. Olive Stewart, sends us the following, under the title of

TOO MUCH CANDY,

which we commend to the careful attention of our readers. The evil pointed out is growing on us, and we must do our duty toward stopping it.]

Good reader, did it ever occur to you while walking the streets of New York—or of the city, even the village, where you either dwell or do most frequently resort—to count the candy shops or places in which candy is sold? If not, when next you go shopping, suppose you set yourself this little sum in addition, and exercise yourself therewith. Most likely the sum total may surprise you; but you will, in that case, please remember, that it is demand that regulates supply; and—thereby hangs a tale. It is safe to assert that nowhere else in the world is so much candy consumed as in the United States; and this mainly by women and children. The female portion of commu-

nity suck and nibble candies all their days, from the cradle to the grave; the males, until they arrive at the dignity of tobacco; and it is only now and then that a rare, I had almost said *noble*, specimen can be found who finds life quite endurable without either. However, I have no intention to be satirical, much less severe; and far be it from me to wish to abridge in the smallest degree the sum of human happiness. I would merely suggest, and endeavor to show, that in this matter the happiness (pleasure is the better word) is of questionable quality, and too dearly bought, by all odds. It would scarcely be exaggeration to say that candy and tobacco are the national indulgences; and if nibbling candy be a milder form of sensuous enjoyment, then using tobacco, even as smoked by Eastern women in the luxurious and costly chibouque, or by Spanish and French dames in the form of dainty cigarettes, is but a branch of the same tree and grows out of the same element, viz.,

a craving after some kind of *sensuous enjoyment*. Perhaps you think this is making a mountain of a mole-hill; that there is not so very much candy consumed among us; and if there be, that it is not worth talking about, still less worth wasting printer's ink upon; but I beg leave to think otherwise, on both counts. For the first, if you don't believe in the almost universal prevalence of the habit, just open your eyes and use them; then confess honestly that you find nearly—mind I say nearly, not altogether—as much candy as tobacco in circulation. In the parlor, the bed-chamber, the school-room, the lecture-room, even the church; on the railroad, the street-cars, the ferry-boat, everywhere that women and children are to be found, appears the ubiquitous paper of candies. When Tom meets Harry he does the civil by saying, "Have a cigar?" When Nellie meets Kate she shows her *sweetness* by holding out that paper of candies, with "Have some?" Babies cry for them, and then, not however in Paddy's sense of the word, cry *after* them. Boarding-school girls spend their pocket-money on them, and nibble and suck while they dream over their lessons; then write home that said lessons give them "such a headache." Ten-year-old Minnie, visiting grandmamma one afternoon, eats an extra quantity of cream-candy, gum-drops, and all manner of choice *bonbons*; at bed-time she is cross and feverish, and mamma says, "That child has taken cold." It is always a cold that goodie-crammed children have—a cold is such a convenient scapegoat for any equivocal ailment—and then mamma gives Minnie some medicine, with a few candies after it, to take away the bad taste. Young ladies suck and nibble their sweets over sensation novels, and lose all healthful energy under the pressure of the two enervating processes, until nothing short of a chance for a flirtation can rouse their languid pulses or take their languid forms out of sleepy-hollow chairs and sofa corners.

Comely matrons boarding at hotels, with no housekeeping cares to take up

their attention, send the children out with a nursemaid, each tiny fist clutching its candy-money, and then, if there are no gentleman at hand, *pour passer le temps*, they too, have recourse to the latest novel and the paper of candies. Day by day these matrons grow stouter, and their complexions more tallowy; at this they wonder and inwardly lament; but seek to mend matters by girding themselves with the latest, most improved pattern of glove-fitting corset, five or six inches less in size than their own waist-measure, and putting on somebody's "bloom of health," thicker and thicker, they lie down on their sofas or loll in their carriages and absorb their candies—all the while under some doctor's care for internal diseases. Now don't suppose that I wish to represent all these candy-consumers as worthless characters—good-for-nothings—not so, not even in the last-mentioned, most advanced stage of the habit; but they are unfortunates, who, to put it mildly, have placed themselves in bondage to a petty and unwholesome appetite; one which tends to encourage a lazy, luxurious, time-killing disposition, and to prevent our women of the wealthier class from being what they ought to be—the finest specimens of the sex. Again, I have no thought of laying all the mental and physical failings of our women at the door of this one childish indulgence; I have merely stated a case that appeals to many people as witnesses of its truth, and beg to sum up thus, TOO MUCH CANDY.

[Mrs. Stewart states the case as it is, so far as she goes; but she has not covered the whole ground of the "candy curse." She has not informed the reader that nine-tenths of the candies peddled out so generally, is manufactured of other ingredients than sugar. Besides thalk, plaster of Paris—which is used to kill rats—white clay, earth, etc., all the common candies are *largely adulterated*. Then the coloring matter put into them is a positive poison. Pure, clean, white sugar would be much less injurious than the poison stuff given to "good little Sunday-school children for Christmas presents!" There are a few parents sufficiently sensible to keep the poison stuff from their children; others will follow their example when they know enough.—ED.]

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

NUTRITION AND FOOD.

BY JULIA COLMAN.

The Importance of Nutrition.—The Sources of Animal Nourishment.—The Comparative Qualities and Quantities of Nutriment in Vegetable and in Animal Food.—The Structure of the Digestive Apparatus Indicative of the Kind of Food Required.—Man's Versatility and Lack of Instinct.—Oatmeal Cracknels.—Peas Cake.—Whortleberry Mush.—Dried Peaches.—Dried-Apple Pudding.—Crusted Apple Pudding.—Apple Pudding Sauce.—Boiled Rice.

"NUTRITION is the source of power," says Herbert Spencer. It matters not whether that power be physical or mental, our ability to exert it depends on the completeness with which the process of nutrition has replaced the matter worn out and cast off by previous exertion. For it is true, that we cannot move a muscle nor think a thought, without using up and getting the power out of some particles of the organ which is the seat of the action.

As this is also true of the involuntary motions, the circulation, etc., it follows that life itself cannot long be sustained without this constant recuperation. Every moment sets free some infinitesimal particle, which gives up its vitality to the work of the moment. The waste matter left behind is thrown into the blood, to be carried out through the lungs, skin, kidneys and bowels.

Some particle is then selected from the blood to fill the vacant place, and it becomes a part of the bone, muscle, cartilage, brain, or other tissue, as the case may be. This is the last act of assimilation or nutrition, the process of converting foreign matter into the tissues of the body. This process is of the greatest interest and importance to us; not only because it is the source of our power, but because the material on which it acts requires intelligent selection in order to receive from it the best results. Hence, the special interest that we women have in this topic, because, as the natural food-

dispensers of the race, we hold influences of the greatest moment in our hands.

We often hear the expression "Mother Earth," but we hardly realize its force until we consider how completely and continually everything we see in this world, comes from the earth. We ourselves are "made of dust." The ultimate elements of our composition are the same as those found abundantly in the crust of the earth; but we cannot appropriate them directly. It is an easy matter to say that there is silica in our teeth, phosphate of lime in our bones, and nitrogen in our muscles, but it is quite another thing to put those simple substances into our stomachs, and have them go to those tissues to nourish them.

The fact is, that these simple elements must be made up into more complex structures—exist in some organized form—before we can appropriate them. And this seems to be the office of the vegetable world. Plants take up the earthy matters and combine them into vegetable caseine, albumen, and chondrine, for example, which sufficiently resemble animal caseine, albumen, and fibrine, to be readily changed into animal substance by the process of nutrition.

This is the origin of all the nourishment of the animal world. Even those animals which devour other animals, get only what nutriment has originally been obtained from the vegetable world. Some animals are so constituted that they can best live in this way; but it must be observed that, while plants take up and organize matter to form food, and also store it away, more or less, in all parts of their structure, but especially in their seeds and fruits, animals take nourishment only for their own use, and do not store it away for the purpose of nourishing others, except to a small extent in feeding their young: They take it to use up in their own tissues, just as we do. Those, therefore, who eat those tissues,

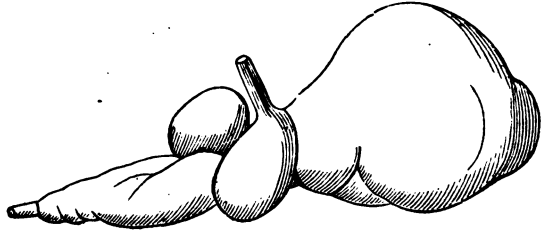
must take the nourishment in an imperfect condition, the tissues being always partly used up. Hence, it follows that the average nutriment contained in flesh, is not nearly equal to that contained in the seeds and grains of plants, as we can readily see by reference to almost any tables of nutrition. Mutton and beef yield but little more than half the percentage of nutrition yielded by wheat, rye, and oats.

The nutriment in the animal tissues must certainly be in a more impure condition, inasmuch as the tissue is always more or less worn, and the waste matter more or less present. Beside this, there is a continual possibility of the presence of a diseased condition of the animal, especially if domesticated. The fattening process itself is one that creates diseased conditions. Hence, the greater purity of wild meat; but it is in plants alone, and especially in the seeds, that nutriment exists in its highest and purest form. If the nutriment assimilated from flesh-food were greater than from other food, we should see flesh-feeders very small eaters, which is not the fact. Some of the nations that live mostly on flesh, are noted for their gluttony.

It is also common to suppose that animal food is superior, in the quality of nutriment afforded. If this were true, we

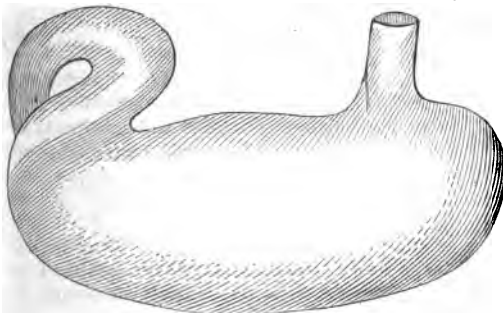
cadaverous, and their tissues, so far from being the most delicate, are rank and tough, and seldom selected by us for food.

The kind of food eaten by each species of animals, in its natural condition, is decided by their structure, and they are led to it by their instincts. Carnivorous animals have a short and very simple



SHEEP'S STOMACH.

digestive apparatus, while that of the granivorous and herbivorous animals is very complex, some even having three or four stomachs. Carnivorous animals are also often supplied with talons and with teeth, for catching, rending and devouring their prey. These indications, however, should be observed discriminatingly, since faults in observation here have led to error. A marked development of the canine teeth, for example, is considered by some a decided indication of a carnivorous nature; but the fact is, the teeth canine are used by the different species for different purposes. In the case of several animals of prey they are very sharp, though not always very large, and they serve well for seizing and tearing flesh. They are largely developed in the hog, especially in the wild boar, and he uses them in tearing up the ground, breaking roots, etc. In the cases of apes and baboons, they are large and strong, and are used for breaking limbs and sticks, and tearing any large, strong substances, such as sugar-cane, which they chew for the sake of its juice. These creatures never eat meat, but live mostly on fruits and nuts. These



LION'S STOMACH.

should see flesh-eating animals more highly organized and more perfectly nourished than others. On the contrary, they do not generally rank the highest in physical perfection or intelligence; they are lank and

teeth attain the greatest development in the elephant, a powerful and sagacious fruit, grain and nut-eating animal.

We see, then, how little can be inferred, from the presence of canine teeth in man,

towards proving that he is, or should be, a meat-eating animal. In point of fact, man uses these teeth mostly, not for tearing or masticating meat, but for testing any hard substance taken into the mouth, and especially for crushing any small seed that may have evaded the action of the grinders. People who are willing to observe facts, instead of build theories, will be surprised to note how constantly and how promptly the tongue carries to these teeth, any small seed or unknown hard substance found in the food.

This is but a specimen of the fallacious character of most of the arguments in favor of the existence of carnivorous adaptations in man. The fact that some men do eat flesh, is no proof that it is the best food for them. They eat and drink many things which it would be much better for them to do without.

We also make a great mistake in supposing that, because the lower animals can safely trust their instincts, men can do the same; that is, eat anything they choose; for men have not the same warning instincts. This cannot better be proved than by the fact that men have extensively and persistently poisoned themselves with such things as alcohol, tobacco, and other substances, natural or artificial. Reason, and not instinct, was given to man to use in this matter, and to raise him above the level of the brute creation, but he has made sad work of it thus far. The unrestrained indulgence of his appetites, has been at once his greatest temptation and his curse.

Both tradition and revelation teach that man originally did not eat the flesh of animals. The exact period at which he did begin to eat it is not known, but it probably was some time before the Flood. It is worthy of note, however, that when express permission to eat of it was given to Noah, it was given in connection with the command to multiply and take possession of the earth; while many parts of the world do not spontaneously produce sufficient vegetable food to sustain immigrants until they would have time to sow and reap for themselves. The early settlement of New

England affords a case in point. The settlers were repeatedly, for months together, with only animal food.

While man thus, by his versatility and command of resources, proves himself worthy to be the "lord of creation," it is more than doubtful whether the animal food, which might be very acceptable in case of extremity, and to which he might even become very much attached, is yet the best adapted to his highest development, either physically or intellectually. It yet remains true that half the race never touch animal food, and many more eat it very sparingly; and that, while in the general ignorance of physiological truth, all these classes of people violate the laws of health in many ways, there are remarkable instances of longevity and hardiness among those who live without animal food. The peculiarities of the subject are well worthy of study, and when it is studied with a view to follow nature in her sensible simplicity, and not to play upon our powers of endurance, we soon learn to discriminate concerning the influence of our food upon our moral and intellectual well-being.

SEASONABLE RECIPES.

Oatmeal Cracknels.—Select good oatmeal, neither very coarse nor very fine. A poor article will not pay for making up. Put one quart of this oatmeal in a deep bowl, add one teaspoonful of sugar, and three and one-half gills of boiling water, or a little less than half as much water as of oatmeal. Stir quickly with a stiff spoon until all is wet, then place on a well floured moulding-board, and make it into a close mass, with as little kneading as possible. Roll out gently, flouring well, until it is but one-fourth of an inch thick. Then cut into diamonds or squares with a knife, or into any desired shape, with a cake-cutter, and bake until the moisture is well done out. A quick oven is the best, but they require close watching; they will not bear more than the very lightest shade of brown, and it is better not to have them browned at all than to scorch them. Serve them like crackers. They should be very brittle, and have a toothsome, nutty flavor. With raisins, for a traveler's lunch, few things equal them. If wanted very tender, cover them while warm in a close vessel, or spread over them a damp cloth.

This is the Scotch "oat-cake," as sometimes made in Scotland. They seldom cut it into shapes, however, but bake it in one piece before the fire. If it is to be kept any length of time, they cool it

on a shelf, and pack it away very tight in a barrel of oatmeal. It will thus keep sweet and fresh for months.

Peas' Cake.—Look over and wash one pint of dry white marrow-fat peas (whole or split), add two quarts of water, cover close and stew gently, until the peas are quite reduced to a pulp; strain through a coarse sieve or a colander, salt to the taste, and pour into a flat dish, to the depth of an inch or more; let this stand to cool several hours, or until it is quite firm; cut in short slices, half an inch thick, and serve cold, as a relish, with bread and butter and stewed fruit. It is palatable, nutritious and wholesome, provided one does not eat too much. Cooked in steam, or in a double boiler, it requires less water.

Whortleberry Mush.—To three quarts of boiling water, in a porcelain-lined kettle, add one half-pint of washed, dried whortleberries; then stir in sufficient coarse Graham flour to make a mush of the desired thickness, usually about half as much meal as water. As soon as stirred, cover and set one side to simmer, from forty-five minutes to an hour. Disturb it as little as possible in dishing. Serve as a dessert, or like any other mush. Zante currants may be used instead of whortleberries, but they are not so good.

Dried Peaches.—Look over the peaches, and, if clean enough, cook without washing. This would hardly be admissible, however, unless you know who dried them. Then put into a porcelain kettle, with three quarts of cold water to one pound of peaches; cover close, and stew gently until quite tender. Then add sugar to the taste—say one pound of sugar to one pound of peaches; boil a few minutes, but stir as little as possible. If there are fears of burning, put where they will cook without burning, but do not stir and mess them. This is the great secret of cooking dried fruit of any kind well, but especially peaches.

Dried-Apple Pudding.—Wash and stew the apples as for "sauce," making them quite juicy; then take the juice of lemons (two large ones or three small ones, to one quart of the stewed apples); add to it what juice will conveniently pour off from the latter, and sweeten it to the taste—perhaps one cupful of sugar. Heat this in a porcelain-lined saucepan, and soak in it thin slices of Graham bread, or batter biscuit; then chop up the stewed apples with a spoon, sweeten slightly, and place a half-inch layer in an earthen pudding-dish, and upon this a layer of the soaked bread, then another layer of the apple, alternating them until the dish is full. This can be varied by strewing in a few dried currants between the layers; let the last layer be apples. Bake from forty to sixty minutes, according to the size and to the heat of the oven. Serve warm or cold, better cold. Fresh stewed apples can be made up with bread in the same way, but, to my notion, they are not quite so good.

Crusted Apple Pudding.—Pare, core and stew slightly, two quarts of tart, mellow apples, and place them in a pudding-dish; then, to one and a half pints of wheatmeal, add one gill of Zante currants, and boiling water enough to make a dough, stirring lightly until mixed; roll it out one-third of an inch thick, and spread over the apples. Bake it in a quick oven forty or fifty minutes, take it out, reverse on a hot plate, mash the apples with a spoon, and sweeten, if desired; cut in pieces like a pie, and serve warm, with some fruit sauce.

Apple Pudding Sauce.—When paring a large quantity of good apples, save the skins, put them in a closely-covered porcelain-kettle, fill them two-thirds full of water, and stew gently for one hour after they are boiling hot; then drain through a colander, sweeten to the taste, and thicken with corn starch, or with sifted Graham flour, as preferred. I prefer the latter.

This sauces nicely the above "crusted apple pudding," though it would be better still to use the juice of grapes or strawberries, or other summer fruits, if they can be had, sweetening and thickening in the same way.

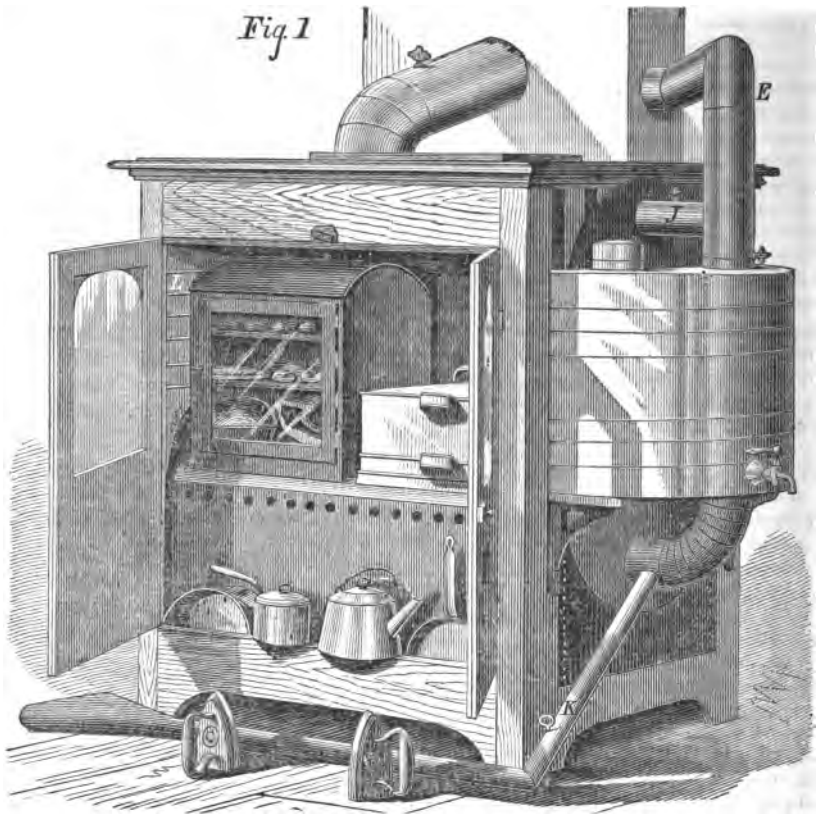
Boiled Rice.—Have over the fire four or five quarts of water, boiling briskly, and one teaspoonful of salt, and into this put one pint of washed rice; let it boil fast, until the rice will mash easily between the thumb and finger; then drain off the water through a colander, and serve the rice either hot or cold.

This cannot be recommended as an entirely wholesome or economical method of cooking rice, but it is the method largely used in the East Indies, and also in England. The water drained off is the "rice-water" frequently referred to in recipes, and sometimes given to the sick. If all used up for this purpose, or for pudding sauces, the waste is obviated. The rice is "light;" that is, the kernels are separate, and most people like it very much.

ICE-HOUSES.—If ice-houses have not already been filled, they should receive attention at once. Every house-owner should have an ice-house. In cases of sickness, ice will many times be found almost indispensable, and also a source of profit for use in preserving fruits, vegetables, meats, milk, cream, etc. There are various methods of building, with which we presume our readers are familiar. A good one is illustrated in the *SCIENCE OF HEALTH* for December, 1872.

GENERALLY the first effect of a wooden pump put into a well is to give an unpleasant taste and smell to the water. This may often be remedied immediately by suspending a bushel of fresh charcoal tied up in a clean cotton cloth in the well; but it will pass away in time of its own accord. It is the result of the decomposition of the soluble matter of the wood.

COOKING, HEATING AND DRYING APPARATUS.



COMBINED COOKING, HEATING AND DRYING APPARATUS.

THE following description and illustrations were published in the *Scientific American* of Dec. 20, 1873:

"The inventor of the device illustrated in the annexed engravings claims to have succeeded in producing a combination of useful apparatus, relating to the operations of cooking, drying, house-warming, and ventilation. To families generally, and more especially those residing in circumscribed quarters, notably French flats, this invention, it is believed, will prove of much utility, as it is practically a complete kitchen compressed into dimensions no larger than those of an ordinary good sized refrigerator. It serves as a range and, at the same time, as a heating furnace, while it exceeds the capabilities of both in its application

to drying fruits, vegetables, or clothes. Paints and chemicals, we are told, may be similarly heated with success, and japanning, it may be added, is accomplished with great facility.

"Fig. 1 represents the device with its attachments, and Fig. 2 the interior arrangements, portions of which are depicted as broken away. In the latter engraving, A is the fire-box, surmounted by an iron plate, B. The smoke and gases from the former pass through a tube, C, in which perforations are made, so that air is thus drawn in, which mingles with and insures the more complete combustion of the products within the hollow iron prism, D. With the latter communicates the chimney-flue, E.

"Surrounding the portions first de-

scribed is a shield of sheet-iron, F, and outside of this is another envelope, or, as it is termed, deflector, G. The upper part of the latter is arched, and provided with suitable hinged covers. There is also a number of perforations, H, near its upper edge. At I are two sets of orifices in the bottom plate, the inner of which lies between the shield and deflector, and the exterior row without the latter. A double current of cold air is thus constantly drawn in from below (as indicated by the arrows) and between deflector and shield, which, while preventing the atmosphere from direct contact with the heated iron within, maintains a constant and even circulation. The warm current emerges at a suitable register in the top of the casing, and, if desired, may be conducted into another apartment by the flue shown. In weather during which it is not necessary to warm the room, the register and flue may be closed, when the current will escape into the chimney-flue by the pipe, J, Fig. 1. The vessel shown surrounding the chimney-flue in the last mentioned engraving, is a hot-water receptacle, and the perforated tube, K, is designed to draw in the heavy and foul gases which sink to the floor of the room, thus, it is claimed, providing efficient and healthy ventilation.

"Within the case, which may be of wood, marble, or any other suitable material, and on the left, is the oven, the bottom of which is so constructed as to deflect the warm air to its sides and top. It is provided with a glass door, in order that the process of baking may be watched, and with suitable shelves for the reception of the articles. It is readily removable, and when in place, rests above the arched portion of the deflector, as shown. To the right is a boiler similarly located; on this being taken out and the cover below lifted, the upper surface of the prism is exposed. The latter, together with the plate, B, Fig. 2, serves to receive sad-irons for heating, or may be used

for any of the culinary operations usually carried on on top of an ordinary range.

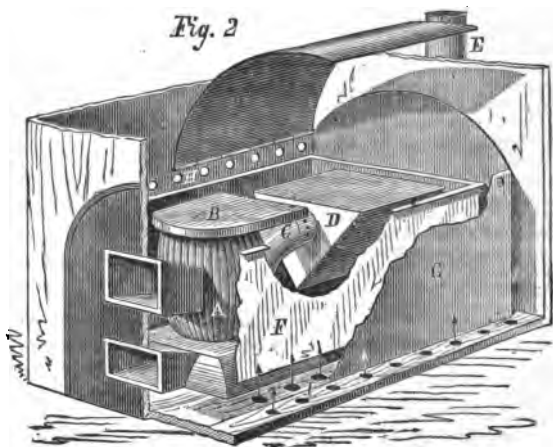
"For drying fruit, the oven and boiler are removed, and iron rods are placed on the ledges, L, Fig. 1. These support suitable shelves on which the material is placed, and which, in the aggregate, give a large amount of heating surface. It is claimed that the ordinary family-sized heater will solidify from three to four bushels of fruit in from eight to ten hours, and that the substance gains from 32 to 35 per cent. in weight, as well as greatly in appearance, over common dried fruit. An economy is, besides, effected in the cost of cans, sugar, labor, etc., as it is stated that the flavor and nutriment of the article heated is perfectly preserved.

"For clothes-drying, rods are provided, over which the garments are hung, inside the case. The operation, we are informed, is completed in one and a half hours, during which period the irons may be thoroughly heated, so that the laundress can proceed at once with the pressing as the garments are removed. In baking, the oven is stated to be economical and rapid.

"During culinary operations producing smoke, the latter is confined in the casing, and passes freely off through the flue. There are no range lids to lift, and breathing the heated fumes arising from an open coal fire is avoided. The device may be adapted to burn either coal, wood, or coke."

Invented by Mr. J. K. Boswell, of Ohio.

Fig. 2



Applications for territory, or for further particulars, should be addressed to S. R. Wells, 389 Broadway, New York, or to Dr. R. T. Trall, 1,516 Chestnut street, Philadelphia, Pa.

ACCIDENTS TO CHILDREN.

HERE is a short chapter of interesting personal experiences, of accidents and emergencies in babyhood, related by several lady members of the Oneida Community, and published in the Circular:

IONE (to Effie, who is brushing her hair).—Why, Effie, what is that great scar on your head?

EFFIE.—That? Oh, it's where my brother cut me with an axe when we were children. We were playing out by the wood-pile. He tried to split a stick with an axe, and I suppose I got in his way. The wound almost killed me; but the scar is fortunately covered by my hair, so that people seldom notice it.

HOPE.—How many accidents of that kind happen among children in ordinary society! My brother cut off my little sister's thumb with an axe, when they were playing one time, before they were old enough to take care of themselves.

EVERLYN.—Look at this ugly scar on my forefinger! Mother was chopping some meat one day for mince-pies. She went into another room for a few minutes, and while she was gone I climbed up to the bowl and seized the knife. Almost the first thing I did was to cut this finger so that it only hung by the skin on the under side. The bone grew together nicely, so that I did not lose the finger, but poor mother was dreadfully frightened.

ZAIRE.—I have a small scar here on my forehead, which was caused by rolling down two flights of stairs when I was four years old. It was a rainy day, and we girls and boys had been chasing each other round the big chimney in the garret. The stairs were near by, and, becoming dizzy, I pitched down. I started for the next flight, but my head being still unsteady, I rolled down that also, and was picked up on the landing and carried into grandmother's room, where I remember I was dosed with sage tea, treated to prunes, figs, and other dainties, and most indulgently petted all the afternoon.

RACHEL.—When I was four or five years old, I was running about one washing-day, and tumbled into a tub of scalding water. I went in head first, and my hair all came off. I was not otherwise seriously hurt, but mother had to take care of me for a long time before I fairly recovered.

PAULINE.—Mrs. H. told me the other day that she lost a darling boy only two or three years old, by his pulling a boiling tea-kettle upon himself when playing alone in the kitchen. He was frightfully scalded, and died in great agony.

IONE.—Dreadful! How often we hear of children being lost! Did you know about the case that occurred last week near Taberg? A girl fourteen years old, and her little brother only five, were missed. All the neighborhood was aroused, and many men searched in vain for hours. The next day the children were found several miles from home in a wooded swamp. The night had been a cold one, and the girl's legs were partly frozen; but she held the boy unharmed in her lap.

LYRA.—I noticed that there was something said in last week's journal about our children not crying much. I think one of the greatest reasons why they don't, is because they are so well taken care of that they don't get hurt half as much as children ordinarily do. There never has been a serious accident among them. Of course, they get bumped occasionally; but there is hardly one of them who has any idea how even a slight burn feels.

PAULINE.—Sure enough! I never thought of that! Children generally have to shift for them-

selves, while their mothers are washing and ironing and getting dinner; but here, the laundry is away in another building; so is the kitchen, and the children only visit those places with their guardians, so that it is impossible for them to fall into boiling water or get possession of dangerous tools.

IONE.—Some folks think that babies must fall out of bed at least once before they are a year old, or not have ordinary gumption. But we are not so afraid of that result but that we take good care not to have them do it. They are almost all in low beds, or so protected when in high beds that they cannot fall out. We believe in cranialogy to this extent, at least, and don't wish to have their intellect injured by unnecessary bumps.

LYRA.—Do you suppose our children will be as smart as others are, about taking care of themselves by-and-by? Some think they ought to learn by sore experience, you know.

HOPE.—Pshaw! I think we need have no fear on that score. It's a grand thing that our children have no scars, or burns, or mutilated fingers. How thankful I am for our children's department!

ALL.—And I; and I.

[Exeunt Omnes.]

[How many children's lives have been lost by falling into wells, rivers, ponds, canals, cisterns, tanks, and overboard when on boats! How many youths have been drowned by breaking through ice while skating! Every Fourth of July, boys blow their hands—and heads—off by fire-arms, and their eyes are put out by fire-crackers. Children are run over by horses and carriages in our streets almost daily. Sprains of ankles or wrists are often sustained by children; and, in their active plays, youths' arms or legs are sometimes broken. How often children are drowned while "in swimming," and many, too many, are scalded or burned to death because of carelessness! Mad dogs, snakes, and the little insect, the bee, are causes of accidents to the young. Substances often enter the eye, causing at first inflammation, and even loss of sight; ears and nostrils are stuffed with beans, stones, etc., to their discomfort and great harm. Children, in their haste while eating, are frequently choked, and sometimes fatally. Young people, not knowing the dangerous properties of certain substances, are frequently poisoned from swallowing them. Sun-stroke and lightning are other causes of casualty, often proving serious, if not fatal. In view of the numberless casualties to which ordinary children are subject, it would seem to be a good thing that they be guarded, watched over, trained and taught, as in this Community, where accidents so seldom happen to them.]

MR. GILES' HOME.—“You have done the chores, haven't you, wife?” said Mr. Giles, coming in one night about sundown.

“No, dear, I had supper to get and the baby was so cross.”

“You haven't been getting supper all the afternoon, I hope.”

“No; I had some washing to do, and the wind-ows to clean, and pies to bake, and—”

“Oh, stop that, please. To hear you talk one would think you had more than your share of work. I'm sure there is no man tries harder than I do to save his wife steps, and this is all the thanks I get for it. Don't go to contradicting me. Give me the milk buckets; if I ask you to milk, you will have a dozen excuses. I want Katie to go with me to keep the hogs off while I milk.”

Katie goes, and her father keeps her three-quarters of an hour, and then tells her she can go and take care of the baby while her mother attends to the milk. In about five minutes Mr. Giles comes in to supper. His wife is down cellar.

“Say, wife, ain't supper ready?”

“In just a minute.”

“Just a minute! Everything is done in just a minute. Another night I suppose I will have to come in and get supper for myself, after working hard all day. If you tried as hard as I do to make home pleasant, we would get along a great deal better than we do. You are always behind with everything, and then you grumble because you have so much to do. Well, supper is ready at last, is it? It is about time, I think.”

They sit down to the table.

“Oh, Lord, we thank thee for this and all other blessings; feed us with the bread of life and save us in heaven. Amen. Is this the best table-cloth you have got? It is? Why don't you buy another? Ain't got any money? What did you do with the money you got for those eggs?”

“Bought a hat for Katie.”

• “Bought a hat for Katie, and me needing I don't know how many farm implements. I never knew such extravagance in my life. It would please me exceedingly if you would consult me about such things after this. I guess I'll go to bed. I can't have any peace up. Wife, before you come to bed, just patch that rent in my coat; and oh! I wore a hole in my socks to-day. You must either mend it or get me out a clean pair. There is a chicken in the barrel by the hen-house; I want that for my breakfast. Come, children, come and kiss papa. Good-night, and don't forget to say your prayers.”—*Western Rural*.

HOW TO VARNISH IN COLD WEATHER.—

When varnish is laid on a piece of cold furniture or a cold carriage-body, even after it has been spread evenly and with dispatch, it will sometimes “crawl” and roll this way and that way, as if it were a liquid possessing vitality and the power of

locomotion. It is sometimes utterly impossible to varnish an article at all satisfactory during cold weather and in a cold apartment. In cold and damp weather, a carriage, chair, or any other article to be varnished, should be kept in a clean and warm apartment where there is no dust flying, until the entire wood-work and iron-work have been warmed through and through, to a temperature equal to that of summer-heat—say eighty degrees. That temperature should be maintained day and night. If a fire is kept for only eight or ten hours during the day, the furniture will be cold, even in a warm paint-room. Before any varnish is applied, some parts of the surface which may have been handled frequently, should be rubbed with a woolen cloth dipped in spirits of turpentine, so as to remove any greasy, oleaginous matter which may have accumulated. Table-beds, backs of chairs, and fronts of bureau-drawers, are sometimes so thoroughly glazed over that varnish will not adhere to the surface, any more than water will lie smoothly on recently painted casings. The varnish should also be warm—not hot—and it should be spread quickly and evenly. As soon as it flows from the brush readily and spreads evenly, and before it commences to set, let the rubbing or brushing cease. One can always do a better job by laying on a coat of medium heaviness, rather than a very light coat or a covering so heavy that the varnish will hang down in ridges. Varnish must be of the proper consistency, in order to flow just right and to set with a smooth surface. If it is either too thick or too thin, one cannot do a neat job.—*Industrial Monthly*.

VENTILATION OF CLOSETS.—This is a part of the sanitary arrangements of houses which is almost entirely neglected. In cities, when houses are let as tenements, the closets and cupboards are used for receiving not only bread, but fragments of all kinds of food, some that is fresh, and some that is sound and spoiling, so that all is more or less tainted. Soiled clothing is often put away here to wait washing. Even in the houses of the rich, cupboards and closets are not properly ventilated. Doors are tight, no ventilation in the ceiling or walls, and sometimes these closets remain closed for twenty-four, or even forty-eight hours; then, when opened, the foul gases are distributed throughout the adjoining rooms. All this is wrong and unhealthful. No part of the house requires more perfect ventilation than the closets. A wire-screen which will exclude flies, bugs, and mice, with a slide which can be closed, should be placed in the wall of every closet. We trust all our readers who are building or repairing houses will see to this securing ventilation for kitchen, halls, bed-rooms, sitting-rooms, cellars, closets, and the rest. Pure air everywhere is what we want.

“I DECLARE, mother,” said a pretty little girl in a pretty little way, “tis too bad! you always send me to bed when I am not sleepy; and you always make me get up when I am sleepy!”



MONTHLY,
\$2.00 year.

NEW YORK, FEBRUARY, 1874.

[SINGLE No.
20 cents.]

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

INTEMPERANCE IN WOMEN.

DR. STEPHEN SMITH, Health Commissioner, of New York, gave an interesting lecture recently in the parlors of the Young Men's Christian Association, on "The Influence and Effects of the Drinking Usages of Society among Women." The following remarks are frightfully true :

All men condemn with a unanimous voice the sin of intemperance in women, and all agree to a proposition, quite true in fact, that women have no natural appetite for liquor. All ranks admit that there is intemperance, nevertheless, among women. The physician has the fullest opportunity of seeing instances of such depravity. Every physician probably knows of instances among his own patients. They can discover, and often do, by the tone of the voice, just the moment when their patient has begun to dally with the intoxicating cup. In London it has been a known fact for some time that intemperance among women had become of startling frequency, not only among the poor wretches of St. Giles, but among the high-bred ladies of the fashionable squares, whether it be under the name of dipsomania, ollomania, or alcoholic excess. The existing causes of wine-drinking among the women of our upper classes are two-fold ; first, the wine-drinking customs of that class of society, where young girls are called upon to taste wine at all social gatherings ; and secondly, the prescription of alcoholic liquors by our physicians for all manner of diseases, aches, or pains with which their female patients are assailed. There has been a recklessness in giving these prescriptions, which has doubtless occasioned much habitual drunkenness among our women. Intemperance takes much stronger hold upon women than upon men, owing to her peculiarities of physical construction, and leads to death sooner. An authoritative estimate of the years of life allotted to drunkards shows that strong working men are killed in eighteen years, men of leisure and women

in fourteen. Reform must begin in the home circle and by means of religious training. Young women must not be taught to taste wine, if they are not to learn to drink brandy. The medical fraternity should unite in the determination to prescribe alcohol only when it is absolutely needed, and to prescribe it only in specific quantities for a specific purpose.

But we fear the plan of reformation suggested by Dr. Smith will avail little or nothing. Reform efforts have been in operation in the home circle for several centuries, and special religious training has been resorted to in this country for fifty years ; yet the tide of desolation rolls on. Nor have we any faith that any good will result from any further appeals to the medical fraternity. It has been appealed to for a quarter of a century with no other result than to render alcoholic medication more general. All physicians claim that they only prescribe alcohol as a medicine when it is absolutely needed ; and as they are the sole judges of its needfulness, what is any further appeal to them but a prolongation of the farce ? A respectable physician would feel insulted to be accused of prescribing alcohol, or any other medicine, except "in specific quantities for specific purposes."

No reformation will ever be effected until physicians cease to employ alcohol as a medicine. But the rest of the evil lies further back. It is in the idea of poisons of any kind. Why poison a person with anything because he is sick?

When we get rid of the drug shop, alcohol will go with it. But it is simply absurd to war against alcoholic poison while retaining a hundred worse ones.

Again, the trouble is not with the women. They are not leaders in the ways of drunkenness, nor of dissipation of any kind. They are always the victims. If they are becoming drunkards and setting bad examples, it is because men have led the way. Let the men cease to use liquor, and that greater curse, tobacco, and the women will be "all right" on these questions.

A SANITARY VEGETABLE.

For the first time in many years we have the pleasure of recording a discovery in medicine made in the *regular* way by physicians of the orthodox persuasion, that promise to be more used than abused. It is that of the "remedial virtues" of an Australian tree, known to botanists as the *Eucalyptus globulus*. An exchange says :

"This tree, the *Eucalyptus globulus* (and perhaps other species of this genus) is attracting much attention at the present time from its properties as a sanitary agent, certain French writers insisting that where it is planted it effectually dissipates all tendency to intermittent fever in its vicinity. The tree grows with incredible rapidity, and is said to take up from the soil ten times its own weight of water in twenty-four hours, at the same time emitting antiseptic camphoreted vapors. By the first of these properties it dries up marshy lands, and by its emanations tends to counteract the noxious elements which would otherwise poison the atmosphere.

According to Dr. Gimbert, the first essays with this tree were made on the Cape of Good Hope, where, in two or three years, a very marked change in the public health was appreciable. In Algiers it is said that quite a number of settlements that had been notoriously unhealthy before its introduction, became entirely changed in this respect."

Some of the medical journals of a late date have been recommending the people to take the medicine themselves, in order to secure its sanitary influences against malaria, and have certified that its "anti-periodic virtues," in preventing

or curing marsh fevers, were equal to those of quinine, arsenic, and other "specifics." But we think that is a decided misapplication of the principle of antidoting miasms. That the *E. globulus*, and many other trees and plants that rapidly absorb water, will also rapidly absorb and even feed upon and decompose malarious gases that are deleterious for human beings to breathe, is a very important truth, and suggests the manner of reclaiming much waste land, and rendering many pestilential districts entirely salubrious. If physicians would give their attention to destroying the *causes* of diseases more, and to poisoning people because they are sick less, they would be vastly more useful, and would find the SCIENCE OF HEALTH their best ally, instead of their strongest opponent.

HEALTHFUL COMPANIONSHIP.

A GOOD, honest, intelligent, hopeful, cheerful companion is a good thing to have in the house. How encouraging to have a true friend tell us the truth, without flattery, and without malice: the truth, even when it cuts across some favorite whim, pet theory, or self-indulging habit; a friend who acts on the idea that it is more "blessed to give than to receive; one who risks incurring the displeasure of another, rather than permit him to go wrong without a word of warning or reproof; a friend who is good, and wiser than oneself. Reader, have you not such a friend? And do you thank the good soul for all his or her counsel and admonition? We may congratulate ourselves that we are not as bad as many we know; but do we realize how bad we may have been but for the kind offices of this good friend? Oh, the power for good of sanctified friendship! How sweet even to suffer for those we respect and love! We class true and enlightened friendship among the Christian graces.

How cold and selfish would be the world without this warming and cementing influence!

Man, no less than the monkey, is a creature of imitation. The boy watches his father's every act—be it virtuous or be it vicious—and straightway attempts to imitate him. By this faculty of imitation, he learns much. Indeed, it is through this he learns to talk, to sing, to work, pray, use tools, and so forth. And it is just here that the power of example is exemplified. Example is always greater than precept. We grant that it is "much easier to preach than to practice." Nevertheless, parents must themselves practice what they wish their children to perform. When a tobacco-smoking father, with cigar, pipe, or quid in his mouth, flogs his boy for practicing what he daily preaches against, the boy will see its inconsistency. Nor will it avail for a father who uses profane or vulgar language, to punish his son for doing the same. If mothers charge their daughters to tell the truth, while they themselves tell untruth, or prevaricate, they must not be surprised if imitation asserts itself in the daughter. The fact is, lies, like chickens, come home to roost.

What is the nature of *your* companionship? If it be with those who are infirm, limping, hobbling, complaining, scolding, grunting, growling, fault-finding, borrowing trouble, desponding, you, however differently disposed, will be injuriously affected by such association and companionship. On the other hand, if you have for companions only those who are pure, clean, healthy, goodly and godly, such association will be a means of personal improvement and growth in grace. If one associates with drunkards, rowdies, gamblers, libertines, jockeys, thieves, and assassins, will he not, in time, assimilate his ways, manners, customs and character to theirs? If one escape moral contamination from such

association, he will be a rare exception. Look out!

A young man in the backwoods has only his oxen, mules, or horses, for constant companions. Is it strange that he should think, talk, and act oxen, mules, or horses? Some men never rise above ox, horse, mule, or dog. Why? because this is the school in which their only education has been attained.

Keepers of the insane assimilate more or less to their poor patients. Indeed, instances are on record going to show that constant watching with crazy persons has dethroned the reason of the watcher. The same is true of those who are kept constantly among criminals. Their moral senses become less and less acute, and the general tone of their spiritual natures is materialized and deteriorated. It is not only a fact that "birds of a feather flock together," but they engender a kindred spirit in all who come within the circle of their influence.

If a man of low tastes, and low, perverted habits, marry a lady of culture, refinement, and high moral and religious character, the chances are that he will drag her down to his low level. In such cases society loses an ornament, and vice gains a victim.

Thus it will be seen how *important* is **HEALTHFUL COMPANIONSHIP**. A sick husband or a sick wife is to be commiserated—not encouraged to cling to the infirmity, but to throw it off and get rid of it at the earliest practical moment. Wives are often made sick by breathing the emanations of tobacco from the breath and through the skin of their husbands. The poor martyrs don't know it; or if so impressed, they dare not complain, lest their liege lord laugh at their "whim" and keep right on. But enough; we simply set out to show the desirableness of **HEALTHFUL COMPANIONSHIP**. Have we made ourselves understood? Have we made out our case? Seek ye

first the kingdom of heaven. And *this* may be regarded as either a place or a condition. The idea meant to be conveyed is evidently the best and highest condition conceivable by the human mind. Good companionship leads in this direction. Bad companionship leads exactly the other way.

PERVERSION—WHAT IS IT?

HE who attempts to make the truth appear false, or the false appear to be true. Webster defines it thus: 1. PERVERT—to turn from truth, propriety, or from its purpose; to distort from its true use or end; as, to pervert reason by misdirecting it; to pervert the laws by misinterpreting and misapplying them; to pervert justice; to pervert the meaning of an author; to pervert nature; to pervert truth.

2. To turn from the right; to corrupt.

A normal condition of the body may, by poisons, be perverted, and so become abnormal. A healthy condition thus becomes diseased. There are many kinds and causes of perversion. The man who smokes, chews, or snuffs tobacco, as a habit, is *perverted*. The man who drinks alcoholic liquors, as a habit, is perverted; so is the one who plays *false* in the affections perverted; or the one who lies, gambles, or steals, is perverted. The slanderer is perverted. So is the legislator who legislates “back pay” into his own pocket, contrary to the bargain as to his wages, which was made before he entered upon office. That physician who prescribes poisons for his sick patient, perverts the law of cure and thwarts, instead of assisting nature, to establish equilibrium, by which the patient might hope to recover. He is a moral pervert who, having experienced the blessings of a godly life, goes astray and falls from grace.

Most men are perverted. Our law-makers, many of them, are miserable sinners, and use their high offices to acquire

wealth and aggrandize themselves. They were *chosen* to look after the best interests of the people. How they do it, may be seen by their shameful proceedings. The fact is, many of these low, bad men are totally unfit for the places they disgrace. Sheriffs, deputy sheriffs, and prison-keepers, who connive at the escape of convicts, pervert the law. Judges, of the New York political ring sort, such as received corruption money from Jim Fisk and others, and were impeached, are miserable perverts. The “gin-and-milk” preachers are perverted. Editors, who stir up wicked spirits, and incite riots; who encourage prize-fights, dog-fights, chicken-fights, bull-fights, and the like, are not only perverted themselves, but they do much to pervert others. So, also, the “blood and thunder” story writers, who first addle their brains with whisky and tobacco, and *then* utter their miserable gabble to poison the minds of numberless boys and girls. Sin is perversion. All wickedness is perversion. Gluttony is perversion. Sexual excess is perversion; so is “inordinate affection.” Was not Adam’s fall a perversion? What about original sin? We need not go into these problems now. Our present object is to show the normal and the abnormal use and condition of things. We may add, that it is easy to judge who is and who is not perverted. All who dissipate are more or less perverted. Every one who stinks of tobacco, rum, or whisky, by their habitual use, is perverted. All who lie, gamble, steal, run gift or lottery enterprises, are perverted. Quack doctors who set traps, by advertisements, to catch “indiscreet young men,” are perverted; so are the aforesaid “indiscreet.” All the dealers in “shoddy” are perverted; so are the manufacturers and venders of quack medicines of every name and nature—no exceptions—*all* of them are *liars*, AND THEY KNOW IT.

The devil must be a pervert. Was he not once an angel in heaven? Alas! who

is there who is not perverted in some respect? But it is not a *necessary* evil. We can so live as to escape perversion and all its attendant evils. The SCIENCE OF HEALTH will show how.

CAUSE AND EFFECT.

HERE are two items, cut from one of our city papers :

How to pass away this Saturday evening agreeably and drive dull care away—Go to — Eighth av., and see the best free-and-easy entertainment in the city, which will be given in his large hall upstairs, and in his billiard room below, where he has six of W. H. Collender's best new standard beveled tables. You will see many familiar faces engaged in a friendly contest and enjoying the choicest brands of wine and unadulterated liquors, imported and domestic ales and porter, and fine Havana cigars, all of which he makes a specialty.

A *Saturday* night's entertainment! This is based on the fact that a week's wages have been paid to men by their employers, and that they have money in their pockets; most of which will find its way into the till of the saloon-keeper, for "liquor and cigars." These grog shops are nothing less than pauper-making establishments. Here follows the "effects" in a notice in the same paper :

THE HOMELESS POOR—AN APPEAL FOR AID.—At the free lodging rooms of the Howard Relief Committee, No. 49 Leonard street, 442 persons were lodged during the past week, and 314 were fed. The institution is open to persons of any nationality, and has sheltered persons from all parts of the world during the past week. The committee state that if they had four more medium-sized stoves, they could accommodate 250 persons more every night.

Provisions of all kinds will be thankfully received; also blankets, mattresses, etc.

The police station-houses sheltered 5,852 male and 1,805 female lodgers for the week ending Friday, Dec. 19, at 9 P.M.—a total of 7,657 persons. The total for the corresponding week of 1872 was 4,016. Total lodgers for November, 1873, 23,574. Total November, 1872, 13,109.

Now, if the managers of our charities will wipe out the aforesaid liquor saloons, there will be comparatively few of these station-house paupers. Do you see it? How true are the lines in Hudibras :

"It takes the devil to make expense,
And Christ to pay the cost."

Liquor and tobacco are the direct or

indirect causes of three-quarters of all the pauperism, imbecility, and crime which curse society to-day. Get rid of intemperance, and there will be less work for charity, less imbecility, and less crime. Then why not?

VICTORY FOR BEER AT THE POLLS.

THE *American Brewers' Gazette* says: "In Illinois, Wisconsin, Massachusetts, and New York States, the teetotalers have met with a signal defeat. We do not say that teetotal issues alone have brought this about, but we do say that they have in a large measure influenced the result, especially in Illinois and Wisconsin, where Beer or no Beer was the ticket, apart from all other considerations. It is to be hoped that the teetotalers, and their political friends, will accept this lesson, and forsaking the polls stick to the platform where their high moral views respecting who should or who should not drink what they like, will meet with the appropriate success they claim, the redemption, probably, of the one man in one thousand who makes a beast of himself."

Not a very encouraging presentation for Temperance advocates. "The redemption of one in a thousand"—a poor prospect surely. It is no wonder that those whose friends have fallen through drink, should be so anxious to save from ruin those not yet lost, by urging on them strictly temperance principles. The *Brewers' Gazette* ought to know whereof it affirms, and it makes us almost heart-sick in view of the dissipated condition of mankind to find such indifference; nay, such wicked temptations put in the way of the young men of our nation as may be met on every hand. "Only one in a thousand" can hope to be redeemed!

"GREAT ARCTIC SALVE."

A CALIFORNIA quack puts forth a flaming handbill, headed as above. He publishes worthless testimonials—one from one Ann Jones, who dates her testimonial, as to the effects of the "great Arctic salve," in a Sacramento "alley," where, it is presumed, she resides. The word "great" is supposed to add impor-

tance to this wonderful remedy for many complaints; among which are "the cure of rheumatism, chronic and inflammatory; for the cure of neuralgia, chilblains, frozen feet; for tetter, ringworm, salt rheum, or other cutaneous affections: price, \$2 a box." [Would not a tallowed rag do just as well, or better?] We beg to inquire whether the proprietor of this G. A. S. is the same who lately "put on the market" "the Great North American Mouse-trap; price, *only* 25 cents."

This same quack sells an "infallible liver cure, at \$1 a bottle." One hundred dollars a week is promised to the man who engages in the sales of these plasters and slops; but enough. The Pacific Coasters are, it seems, as gullible by the quacks, as are the blue-noses east of the Rocky Mountains. Question, How long shall these patent medicine swindlers be permitted to rob and poison the people?

MISTRESS AND SERVANT.

In an article under this caption the *Daily Graphic*, with many timely and practical remarks, says;

"The average modern woman knows very little

about housekeeping, and cares less than she knows. She looks upon it as drudgery. She could not get a complete dinner in perfect order to save her life. She has the least practical knowledge of how a whole house is to be kept in order, and the entire mechanism of the household to run in perfect time, without friction or creaking. She cannot teach what she does not know. She has neither the taste nor the patience to go into the kitchen and show her domestics just how every kind of work should be done. She bargains for servants that understand their business. It is her place to issue orders and their place to obey them; and it is quite as much as she can do to issue commands, without superintending the execution. Under these circumstances we submit whether a training-school for mistresses is not quite as important as one for maids."

Verily, a training-school for mistresses is a thousandfold more important than one for maids. A know-nothing woman is no more fit to preside over a household than an ignoramus of a man is to manage the outdoor affairs. And we would go a little further and say, that no woman is fit to be mistress, wife, or mother, until she personally understands how to cook wholesome food, dress children healthfully, and preserve her own health. This may sound like very radical doctrine for the "butterflies of fashion," but we think it is radically true.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

WATER.—J. W. P.—"In a city like Des Moines, Iowa, where all well-water is hard, and rain-water filthy, on account of soft coal being burnt, how is one to obtain pure soft water? Many cannot build cisterns, if they would secure the object."

You can filter the rain-water so as to make it pure, or soften hard water by distilling it.

LECTURERS' OUTFIT.—J. S.—"I wish to prepare myself for a lecturer, and to know where I can obtain the necessary outfit, including physiological drawings, portraits, charts, etc."

Send stamp to this office, with address, and ask for circular entitled "Apparatus for Lecturers."

LIVER AS FOOD.—G. C. T.—"Do you consider beef's liver as any more objectionable as food, than any other part?"

Yes, most decidedly, entirely unfit for food; as

an excrementitious organ, it is constantly loaded with impurities from the body of the animal.

HYGIENIC HOMES IN THE SOUTH.—Letters come to us asking where, in the South, accommodations may be found.

We regret to say there are no such establishments south of Wilmington, Delaware. A list of all the best Homes is given under the proper heading, "Directory Cards," in the Publisher's Department of SCIENCE OF HEALTH, which see.

CATARRH.—E. L. W.—See July No., 1873, SCIENCE OF HEALTH, for cause and cure of this malady. You evidently eat too much. Can you not regulate your appetite? Do this, and you will soon begin to mend.

HYDROCELE.—"Please tell me how you would treat a hydrocele on Hygienic principles."

Hygienic physicians purify the system by bath

ing and diet, and then perform the usual surgical operation. In this manner they succeed where other physicians fail.

DIET IN KIDNEY COMPLAINTS.—"What sort of diet would you advise for one suffering from kidney disease?"

The more simple, the better—bread, apples, potatoes, etc.

"WHAT COLORS ARE MOST POISONOUS?"

It depends on the ingredients of which the coloring matter, or paint, is composed. There is no poison in color *per se*.

PALPITATION OF THE HEART.—"One of my family, a married lady, has, occasionally, violent palpitation of the heart with difficult breathing, lasting about five minutes, and followed by a severe chill. Are these the symptoms of heart disease? If so, what is the preventive or remedy?"

Such symptoms are most frequently attributable to dyspepsia, or affections of the liver.

PERFORATED BUCKSKIN UNDERGARMENTS.—"These garments are advertised as possessing remedial properties, or as preventing certain diseases. I write to inquire of THE SCIENCE OF HEALTH, if there is anything in it?"

They are only useful in the sense of clothing. Worn over the under-garments, they are equivalent to an overcoat, though not so clean, or convenient to lay off or put on.

SALT.—J. S.—"What particular injury do you consider salt to cause the human system?"

No particular injury. It only causes general waste of vitality.

BREATHING TOO COLD AIR.—J. M. C.—"Can any one breath too cold air in a sleeping-room?" Not in this climate.

MILK FOR CHILDREN.—G. W. T.—"In your 'Answers to Correspondents' in relation to 'Food for Children,' I think *milk* is never mentioned. Is, or is it not, a desirable article of food for children under three years old?"

Milk is proper food for infants. Childhood

commences when the teeth are sufficiently developed to masticate solid food. Then, milk is not the best food.

A QUACK'S PRESCRIPTION.—"A young man writes, inquiring about the 'standing' of one of those pestiferous persons who advertise to cure certain complaints, for a specified sum of money. The young man says: 'He sent me a powder to put in half a pint of brandy, to be well shaken. Dose, one spoonful each morning. His terms are \$50. To see me through, I have already sent him \$10; but as there are so many quacks who thrive on the gains derived from persons of my class, and leave them worse than they were before, I thought best to consult you in regard to the merits of this doctor, as you have more facilities of obtaining such information than myself; and I have every reason to place confidence in your judgment and integrity. Hoping to hear from you soon, I remain, very truly yours, —.'"

That \$10 will prove a permanent investment—no interest, no returns, a total loss; while the poisonous powders and the brandy will go into a poor sick stomach, to inflame and distress the victim. If the young man's money holds out long enough, the quack will make him a confirmed medicine-taker, and, ultimately, a first-class drunkard and a pauper, if nothing worse.

THE OPIUM HABIT.—A poor victim of the drug-system writes as follows: "Dear Sir,—If you know of any cure for the opium-habit, I would like to know it. I have been using it for about two years. I had a long sickness, and it was given to me by my doctors, and now I cannot leave it off. I used to pride myself on my power to abstain from the use of anything that I thought had a bad effect on my system, but I have lost all that power now. If you have any work that treats on this subject, I would like to have it.

"Hoping to hear from you as soon as convenient, I am, truly yours,
D. V."

Quacks advertise a specific for this infirmity; we know only one remedy: namely, to quit it. The grace of God is said to be sufficient for all repentant sinners.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

OLD-SCHOOL THEORIES MELTING AWAY.

An old physician says: "THE SCIENCE OF HEALTH is a decidedly sound, healthy and living journal. I find my old-school theories, one by one, melting away, under the influence of the rational and common-sense teachings of THE SCIENCE OF HEALTH and kindred works, and I will very soon procure Dr. Trall's works, which I see advertised. It is only two or three years since I first read the

first line on any subject except about regular physicians, but I confess to the pleasure I have had from the little I have read of true health works."

HEALTHFUL BREAD.—S. O., in renewing his subscription for THE SCIENCE OF HEALTH, says: "I cannot help telling you, before I close, of what splendid luck we have had in making the Graham batter-biscuit, or gems. At first, we had but poor success; but we did not give it up, and

after many failures, we have at last succeeded in getting them very near perfection, and light enough to suit anybody. The main trouble at first was, we did not have a strong enough fire, and did not bake the top first. In conclusion, I wish THE SCIENCE OF HEALTH all the success it so well deserves."

[We are encouraged by such words of cheer, and by the additions made to our subscription-list by friends to the cause.]

A CLUB.—J. W. S., writing from Maine, says: "I find THE SCIENCE OF HEALTH an indispensable article of home literature, and think it ought to be found in every household. As I am the only subscriber at this place, I wish I might increase your list here; and, perhaps, by making an effort, I may be able to do so; and, perhaps, it will be the means of enlightening some who are drugging themselves with quack medicines obtained from some traveling doctor, for we are particularly favored, or more truly cursed with them, in this vicinity."

[It will be found much the safer plan to give such quacks the "go-by." Let them severely alone, or else drum them out of town.]

GETTING BETTER.—W. F. S. relates his experiences, since becoming a reader of THE SCIENCE OF HEALTH. He says: "My health is doing first-rate, and commenced to be better since living Hygienically. What little I know of it was gathered from THE SCIENCE OF HEALTH, and of books procured through its recommendation. I have good reason to be, and shall ever be thankful, that I invested \$2 in that publication. I now have quite a library of books, and I try to live according to their teachings. I have been working on this plan something over a year, and I am just fairly beginning to realize their benefit. I could never be induced to go back to hog-meat, and such like, any more. Some of my Allopathic neighbors and friends (and they are all of that school around here) have made some fun of my mode of living and the books I study; but, thanks be to God, my countenance begins to tell its own story. Constipation, piles, inflamed eyes, indigestion, and all those effects, require no pills, neither a doctor—'that's what's the matter.' I now sleep as other well folks do."

HEALTH IN TENNESSEE.—E. S. says: "I would like to mingle my voice with the many who are calling for life, health and happiness. For the last year I have been almost a constant reader of your publications, and have been greatly benefited healthwise, as well as in the knowledge I have gained. With this letter I send an order for the 'Hydropathic Encyclopedia' and the Anatomical Plates, which I want for my own use, and for the good I may do to others. Health reform is very much needed in this country, where men, women, and even children, use tobacco, eat hog-meat, but little fruits, comparatively, and rarely ever bathe.

"Onward with the science of human life! Teach the people God's physical laws, and how to obey them, that they may have comfort, joy, peace and happiness in this life, and die 'full of years,' with a soul developed and fitted for the Mansion on high. Sometimes when I ask my friends to subscribe for THE SCIENCE OF HEALTH, they complain of the 'hard times,' and say they can't spare the money. If they could see how they are wasting money, yea, even vitality and life itself, they would not thus complain. I will do the best I can to circulate THE SCIENCE OF HEALTH, for it is just what the people need."

WOMAN'S DRESS.—A clergyman writes us as follows: "I am much interested in the matter of woman's dress. I write to ask information through THE SCIENCE OF HEALTH, whether there has yet been devised any physiological and Hygienic dress for woman; and if so, where a description of it can be obtained. Thanks for your ventilation of corsets and false hair, etc., but it seems to me that the present model of dress is radically wrong, viewed from a Hygienic standpoint, and needs a complete remodeling. An answer will oblige. Very truly yours, —."

[We leave this question for answer, by any one who may be able to do it satisfactorily. We propose to agitate this subject until common sense in dress shall prevail.]

STILL PERSEVERING.—E. M. A. writes: "I would like very much to raise a club for you, but times seem hard and business dull, which makes the agency business up-hill work. Still, I believe better times are coming, and I will then be able to meet with success. Think the SCIENCE OF HEALTH is calculated to do great good if its teachings are obeyed. But here is another difficulty in the way of getting subscribers. It strikes a blow at the present modes of living and the follies of the prevailing fashions—which the majority are not willing to forsake, as being called stylish and fashionable seem to be of more value and importance to them than the preservation of health. To some such the SCIENCE OF HEALTH is a dry work. How strange, when the preservation of health should be the first thing to claim our attention, that with so many it is the last. But I am going to try to raise a club, if it is but a small one."

A CANADIAN TEACHER says:—"I consider THE SCIENCE OF HEALTH the best of its class. Its practical, common-sense articles, cannot fail to convince the candid reader that 'something to take' is *not* necessary to restore ill-health, but 'temperance in all things' that are good, and abstinence from all others, are the scientific rules of Health. May success attend your efforts to extend the true SCIENCE OF HEALTH.

Book Notices and Reviews, which are crowded out of this for want of room, will be given in our next number.

Our Puzzle Column.

A CLASSICAL ENIGMA.—135 LETTERS. 113, 8, 82, 19, 46, the Egyptian god of eloquence.
15, 99, 35, 79, what the Spartans knew not.
85, 16, 11, 57, 21, 24, 81, 5, 28, 13, was carried by Pluto to the infernal regions.
90, 76, 124, 61, 104, the Mohammedan Bible.
72, 10, 67, 101, muse of history.
61, 73, 105, 89, 98, 71, one of the Gorgons.
30, 70, 3, 99, 51, 44, 37, a youth of Abydos, enamored of a priestess of Venus of Sestos.
46, 9, 75, 81, 14, 115, 93, 83, 56, the goddess of tragedy.
6, 109, 121, 80, 60, 102, father of Jupiter.
2, 108, 105, 65, 97, the infernal regions.
72, 113, 31, 43, 59, 83, the boatman of the river Styx.
58, 82, 21, 80, 39, the Roman market-place.
84, 9, 22, 68, 45, goddess of the hearth.
49, 16, 119, 87, 50, 35, 42, 118, 93, a great philosopher.
12, 107, 39, 116, a star in the constellation Lyra.
73, 122, 53, 106, 78, 41, 95, 76, 32, 4, the classical name of the Dardanides.
54, 99, 7, 69, 110, the river of oblivion.
91, 55, 40, 52, 88, 125, giants of great strength.
109, 27, 69, 29, 84, 118, a great Latin poet.
77, 1, 66, not Greek.
80, 123, 87, queen of the fairies.
74, 96, 47, 13, 18, those who presided over the course of human life.
119, 23, 63, 100, one of the asteroids.
1, 25, 101, 51, 114, 120, 92, 14, 79, 125, 17, a prominent feature in the Trojan war.
26, 80, 117, 72, 33, 94, the god of fire.
38, 55, 53, 83, 111, father of the Pleiades.
72, 33, 62, 82, a Roman remarkable for the severity of his manner.

My whole is quotation from Washington Irving's "Tales of the Alhambra."

PETA.

WORD SQUARES.

KEY.—The first is given as a puzzle, and followed by its solution as a guide to the second and slightly longer square, which, it will be observed, is composed of five letters each way.

No. 1.—Anxiety.

Sour.

To travel on horseback.

Paradise.

The solution is:

C A R E

A C I D

R I D E

E D E N

No. 2.—Sharp.

To dye.

Extreme.

A large round molding.

To blot out.

FRANK.

TRANSFORMATIONS.

By altering one letter, transform a wild animal into a running plant, which bears a table vegetable; again change a letter and have an ecclesiastical dignity.

By altering one letter, transform a garment into a young horse.

Mrs B.

A CROSSWORD ENIGMA.

My first is in wounds, but not in lancet;

My second in jaundice, but not in pill;

My third in asthma, also in fidget;

My fourth in headache—that every-day ill;

My fifth in pleurisy, not in poultice;

My sixth is in cold, but never in faint;

My seventh in heartburn, not in doses;

My eighth in hysterics, not in complaint;

My ninth is in health, which my whole doth give

To those who try by its virtue to live.—FAN.

Hygienic Seasoning.

AN affected young lady, on being asked, in a large company, if she had read Shakspeare, assumed a look of astonishment and replied: "Read Shakspeare? of course I have; I read that when it first came out."

A POOR family in Fond du Lac, Wis., consisting of a man, his wife and eleven children, recently had \$100 left them, and the poor, overworked woman has bought a \$70 silk dress, and gone to taking music lessons.

A THOY man tried moral suasion to keep the boys from stealing his cherries, but while he was tenderly talking to one, the other four stole his dog.

"TOMMY, my son, what are you doing there with your feet dangling in the water?" "Trying to catch cold, ma, so that I may have some of those cough lozenges you gave me yesterday."

"How old is your mamma?" asked a love-smitten old bachelor of the daughter of the widow who had enchanted him. "I don't know, sir; ma's age varies from about forty-three to twenty-five," was the artless reply; and the bachelor was disenchanted.

A GENTLEMAN was warmly eulogizing the constancy of an absent husband in the presence of his loving wife. "Yes, yes," assented she; "he writes letters full of the agony of affection, but he never remits me any money." "I can conceive that," said the other, "for I know his love to be unremitting."

THE Home Circuit—Walking about with baby in the night.

VERY few horses eat corned beef, but we saw one standing the other day before a store with a bit in his mouth.

"I SAY, dar, what'll you take for dat yer mule, Cuffy?"

"O, I axes thirty-five dollars for him, Mr. Sambo."

"O, go way, dar. I gibs you five dollars for him," said the first.

"Well, you can take him, Sambo. I won't stand for thirty dollars on a mule trade, nohow."

AT EXAMINATION.—Medical Student—"Mr. Jones, if a patient came to your office, what would you first do?"

"Ask him for a fee, sir."

DR. ABERNETHY, of London, had a young lady brought to him by her mother for treatment. He took out his knife and ran it under her belt, instantly severing it, exclaiming:

"Why, Madame, don't you know there are upwards of thirty yards of —" (what are more elegantly termed bowels) "squeezed under that girdler. Go home; give nature fair play, and you'll have no need of a prescription."

THE near-sighted hen that ate saw-dust, supposing it to be cornmeal, then went and laid a nest full of bureau knobs, sat on them three weeks, and hatched out a complete set of parlor furniture, was a pretty fair hen. [A friend of ours says she don't believe it.]

A PHYSICIAN, on presenting his bill to the executor of an estate of a deceased patient, asked, "Do you wish to have my bill sworn?" "No," replied the executor, "the death of the deceased is sufficient evidence that you attended him professionally."

"To holdin' a postmortem examinashun on a hoss who afterwards recovered, \$1.50," was one of the items in a horse-doctor's bill paid by an Oregon stock-owner.



No. 21.] New York, Mar., 1874. [Vol. IV.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

THE MOTHER'S MOULDING WORK

BY ELIZABETH DUDLEY.

THE possibility of the influence of the mother's imagination on the physical conformation of her unborn child, has often been discussed by medical writers, and a variety of instances brought forward to prove both sides of the question; although most people, especially among the uneducated, incline to the affirmative. One of our most scientific physiologists, William B. Carpenter, M.D. (etc.), of London, sums up the evidence briefly and gives judgment as follows: "No soundly-judging physiologist of the present day is likely to fall into the popular error of supposing that 'marks' upon the infant are to be referred to some *transient* though strong impression upon the imagination of the mother; but there appear to be a sufficient number of facts on record to prove that *habitual* mental conditions on the part of the mother *may* have influence enough at an early period of gestation to produce evident bodily deformity, or peculiar tendencies of the mind."

To a woman who is both mother and physiologist, as I am, this seems a lame and impotent conclusion; true, so far as it goes; but going so little way. It is discouraging and vexatious to find, on studying the writings of our great modern scientists, whose opportunities of biological and psychological observation

have been so much greater than mine, that they have apparently learned no more concerning the wonderful and complex phenomena of human reproduction than was known in the sixteenth century. When our teachers of the "biological law of heredity" confine themselves to a physiological and pathological view of the subject, ignoring the psychological influences which so greatly affect the hereditary transmission of individual peculiarities, I am not surprised to find them unable to account for the production of a genius—of a great poet, or a great thinker. They truly tell us that no great poet has inherited his poetic (or creative) genius from his ancestors, although a great poet has sometimes been the father of mediocre poets; and then they lament that, notwithstanding "the strenuous efforts and the protracted meditations of the legions of investigators who have gone before us, nature still has abysses dark and deep, before which the keenest sight becomes blindness," etc.

Without presuming to hope that we shall ever be able to penetrate the profoundest secrets of nature—to comprehend the origin of life—I yet am unwilling that this subject shall be left just here, and the conclusions of these wise men be accepted as the Ultima Thule of scientific knowledge. Pre-natal influ-

ences have exerted so great a power over the human race, that now, when knowledge of every other subject is rapidly developing, this should develop correspondingly. Having learned so much of the phenomena of reproduction that we do not expect the children and grandchildren of degraded, vicious, ignorant men and women to be as capable and conscientious and intelligent as the children and grandchildren of industrious, moral, educated people—why should we not continue our investigations and learn how to give birth to a still higher race of men and women, superior to any that the world has yet known?

The chief burden of such researches must fall upon educated women, as theirs will be the greater share in the work of human improvement. Since the mother receives a germ, described by the physiologist as a little, oval, flattened body, with a tapering filiform extremity, the whole less than two lines in length, perfectly transparent, and with nothing that can be termed structure distinguishable within it—since from this minute beginning, she through long weary months fosters and develops the living creature, until at last she presents to the world a beautiful infant, capable of independent existence, and of becoming a mighty power for good or evil, it follows that she is the one from whom we must learn new facts concerning the science of life. If a few truthful and intelligent mothers would together study biology, and physiology and psychology, and would faithfully relate and record their own experiences and investigations, many useful facts would be made known. Scientists, being men, cannot from personal experience understand the intricate, delicate, unrelaxing work of gestation, nor how minutely it pervades the entire nature of woman. They form their conclusions from observation only; each student forgets that his own wife is the veiled goddess—the Isis—and that he may so educate her as to remove all traditional superstitions and old fables from her mind; and humbly referring the cause of life to the Author of life, may, through

perfect love, so win her entire confidence that she will become able to tell him her innermost thoughts and perceptions.

Then, and then only, will processes and truths of nature, more wonderful and beautiful than anything which he yet has known, be revealed to him. Then only will he give to woman—hitherto considered by the majority of his sex as little different in her functional relations from the beast of the field—her proper place and sustenance in it. Then only will he cease to believe her mind inferior to his own; but will recognize its extraordinary activity and versatility and adaptability as evidence of innate strength and fitness for her peculiar work.

This peculiar work is not only, through her physical powers, to give life to the human race, and nourish it during helpless infancy, but also, through her cultivated mental and moral nature, to aid in the constant improvement of mankind. The mother's moulding work is not merely a modeling of the body to statuesque proportions and beauty—not merely giving physical health and vigor—but it is pre-eminently the moulding of the mind, the giving individual character and force. When our writers on heredity are puzzling over the causes of *atavism*, why do they not reflect upon the remark so frequently heard from mothers, "I marked that child from his great-grandfather;" that is, she had been told of a peculiar bodily or mental characteristic of the great-grandfather, and her mind during pregnancy dwelt so continuously upon this that she reproduced it in the child.

We have only to read the biographies of St. Augustine, of George Herbert, of the Rev. John Newton, of Gretry, the musical composer, of Joseph De Maistre, of Napoleon Bonaparte, of Samuel Johnson, of Oliver Cromwell, of George Washington, of the brothers Napier, whose mother was Lady Sarah Lennox, of Bacon, Erskine, and Brougham, of Canning, Curran, Wesley, and Paley, of Gray, Thomson, Scott, and Southey, of Bulwer, Schiller, Goethe, and Carlyle, of Ary Scheffer, of Michelet, of Lamartine, Byron, and Robespierre—we have only to

read of these, and many others equally renowned, if we would learn how a mother may mould her children to good or evil, and through them may control the destinies of nations. That this is chiefly her own work, and but little influenced by the father, is a fact so apparent to every observer, that I need quote but one instance in support of it.

Mr. Tufnell, in his "Reports of Inspectors of Parochial School Unions in England and Wales, for the year 1850," informs us that "in a large factory, where many children were employed, the managers, before they engaged a boy, always inquired into the mother's character, and if that was satisfactory, they were tolerably certain that her children would conduct themselves creditably. *No attention was paid to the character of the father.*"*

Some will tell us that it is through education after birth that the mothers of the men above mentioned influenced their sons to good or evil; but though there is a measure of truth in this, it does not at all affect my argument, as many benevolent people will assure us, who, having taken the infant children of ignorant, vicious mothers to educate and train up as their own, found themselves unable, notwithstanding the greatest care, the most assiduous teaching and liberal expenditure of means, to bring the children at maturity to the level of the well-born. In many instances the evil propensities of these unfortunate babies have developed as they grew, until their would-be-parents were compelled to put them under severe restraint, and entirely relinquish their plan of adoption and introduction to refined society.

This subject is so interesting to me that for years I have studied it assiduously, and have collected a number of interesting and reliable facts concerning it. It is only by asking questions that one can learn, and if I was not born asking questions, I am sure that I began as soon as I could speak! Naturally, people give me their confidence, and since I have

learned how to ask questions, I have discovered some things that are not printed in books, especially concerning the mental states of prospective mothers. Let me briefly cite one mother's experience in support of my argument.

I know a family of six people, four sons and two daughters. The eldest daughter is refined, well-educated, well-formed, handsome, and very haughty and vain; she is also so fond of elegant dress and fashionable society, that she takes no pleasure in any other use of life. The eldest son, next in age to her, is of similar character, yet less disagreeable in manner; the third child, a son, resembles the others in all but pride and vanity; he is also more contented with home life than they. Now comes a marked change. The fourth child, a daughter, though handsome, well-formed, and refined like the others, cares little for dress, is very plain in attire, and utterly refuses to waste time in fashionable society. She has always been an ardent, thorough student, never spends an idle moment, but reads and studies, and is happiest when laboring to conquer some abstruse science or almost forgotten language. She is humble and simple-minded in an unusual degree, and is often misunderstood because she never thinks of herself, nor of the effect she is producing on others. Her brothers and sisters are frequently mortified to see her, when in company, begin, without waiting to "be introduced," a conversation with some scientific man, and arouse his interest by intelligent questions, until the pair are soon conversing with such animation and pleasure, that those who do not hear what is said imagine them to be lovers!

The two youngest children are boys, and are both very fond of study; while in other respects resembling the second brother. These children present such unlikeness of mental character, because of the circumstances in which their mother was placed before the birth of each. She has given me her psychological experiences fully, making a most interesting family history, which I have not space to relate here, but will in a future number.

* The emphasis on the last sentence was given by Mr. Tufnell. I have copied his words as they stand in his published report.

HOW TO GET WELL AND HOW TO KEEP WELL.—No. 3.

BY ERNEST WELLMAN, M.D.

CAUSES OF DISEASE CLASSIFIED.

THE causes of disease are naturally divided into three classes :

First, Remote or Predisposing ;

Second, Exciting or Incidental ;

Third, Proximate or Existing.

The remote or predisposing causes exist in the habits of the individual, by which the system is prepared for disease in one or more of its manifestations; the exciting or incidental causes are the immediate precursors of disease, and may be described as accidents, emergencies, casual indulgences, etc.; while the proximate or existing causes are those that are in the system, and immediately connected with the disease itself, and are represented by impurities or poisons in the blood, obstructions in the circulation, foreign substances in the flesh, wounds, bruises, frost-bites, etc.*

This classification of causes is the one adopted by the first great physician, Hippocrates, and it represents with scientific precision the actual relations and conditions that lead to disease, provided we bear in mind that these causes occasion diseases only when in conjunction with the living principle. No amount of bad air, bad food, stagnant water, or other poisons will cause disease except in the living system. Disease is an action—a vital action—and it never can occur or exist, except in vitalized organisms, no matter how plentiful these causes may be.

Let it be remembered, then, that the vital principle is an important factor in the production of disease, and we will readily discover and disown the absurdity that diseases are *things* flying in the air, hiding in our houses, stealing in at our windows, traveling from place to place, or communicated from person to person. Contagion is a cause of disease, but never a disease, as a moderately care-

ful thinker would soon discover, had he not been too profoundly educated into the mysteries of medical wisdom.

No intelligent physician, I presume, will dispute the correctness of the above classification of causes; but there is great latitude of opinion as to the relative importance of these classes in the production and maintenance of diseases. Physicians of the prevailing schools fix their attention largely, if not exclusively, on the proximate or existing causes, which they confound with the disease itself, and so treat the two indiscriminately. The patient, on the other hand, has his attention called chiefly to the exciting or incidental cause or causes of his illness. The cold that he caught, the food that he ate, the fall from a horse or on a slippery pavement, is the great bugbear in his mind. Like his physician, he seldom goes back of these immediate causes to those that rendered them possible, or prepared his system for the exhibitions of disease.

Now, both these classes have their appropriate places, and, as causes of disease, are very important; but their combined importance does not equal that of the remote or predisposing class. To these the attention of the hygienist is chiefly directed, because they are fundamental. They are the forerunners, in ninety cases out of one hundred, of both the exciting and the proximate causes. These could not exist, save by violence, except as the sequel to those. The poison in the system is there because it has been inhaled, swallowed or ingenerated; the foul blood exists because the patient has befouled it; the cold or catarrh would never have appeared, if the patient had always breathed abundantly of only pure air. Nor would he ever have gluttonized, if his tastes had not been debauched by previous bad habits. Bad food and bad drink are at the bottom of abnormally voracious or epicurean appetites. Thus, though the disease depends immediately on the proximate causes, and these often

* A more complete analysis of causes will be found in our August number for 1878, under the head of "Disease and its Treatment," to which the reader is referred.

largely on the incidental causes, neither could have existed but for the predisposition induced by wrong-doing.

All true medical treatment, therefore, begins with the doings or habits of the patient. "Cease to do evil," is the first step in the journey toward health, as it is the sure preventive of sickness. Disease is the penalty of wrong-doing, and is to be cured only by right-doing. Health exists in and through obedience to natural laws, while sickness is the certain evidence of disobedience.

These habits, which constitute predisposing causes of disease, may be divided into,

First, The use of abnormal or unhealthful agents; and,

Second, The abuse of those that are normal or healthful.

Here again, we have not only great obscurity in the popular mind, but wide difference of opinion as to what constitutes healthful, and what unhealthful agencies. Indeed, every man assumes to draw the line for himself, and usually in obedience to his own perverted appetites. Experience he holds to be the standard of truth. "This is healthful," he says, "because it agrees with me; while that is unhealthful, because it does not agree with me." "If this is poison," says another, "it must be a very slow poison, for my father used it for fifty years, and he was a stronger and healthier man than any of his sons." Which is quite likely. He was vigorous enough to resist the evil effects of the poison without apparent suffering, but not sufficiently invulnerable to its use in large quantities, to beget at the same time as robust children as himself had been. "We cannot eat our cake and keep it too." We cannot use our strength in suffering bad habits, and still retain it for other purposes.

Yet we would not for a moment disparage the importance of experience. We know it to be the ultimate standard of truth, the basis of all human knowledge; and yet it is valuable only when it is itself tested in the light of truth already established. No man's experience is worth a straw if it conflicts with known

principles. Experience has been the resource of the ignorant in all ages, and every absurdity within the imagination of man has been practiced in obedience to its teachings. The writer was well acquainted with an old man who never took his pipe to his mouth in the presence of strangers without prefacing the act with the remark, that "he did not smoke because he loved it, but to draw the water off his stomach." So, too, he never drank his toddy, except to improve his digestion. That man passed into imbecility, and died after two years of dementia, the result of apoplexy, induced by those very bad habits that his experience taught him were improving his health. Experience is simply a groping in the dark—a feeling our way over obscure paths or trackless wildernesses; and whither she has led us, history has partially recorded. It was not until science came to strip the mists from our eyes and *interpret* experience, that knowledge became systematic and reliable. Hence, whether a habit is healthful or unhealthful, must be decided in the light of scientific knowledge, rather than of isolated experience.

Health agencies are air, light, water, food, exercise, rest, clothing, electricity, magnetism, social influences, etc., etc.; and a proper relation to these secures health to every human being in whom health is possible, while an improper relation tends to the production and maintenance of disease. Abnormal or unhealthful agencies, *per se*, are, on the other hand, comprised under the head of substances that are not appropriable by the living system, but must be rejected by it. They are tonics, stimulants, narcotics, sedatives, emetics, cholagogues, purges, diuretics, diaphoretics, etc.; in other words, any substances that occasion in the vital system peculiar or specific actions. Healthful substances, when properly used, never cause immediate or specific changes in the actions of one's system. They are always received quietly and easily. There is no disturbance of the vital functions, no excitement in the general system, no extraordinary

wear and tear consequent upon their introduction into the vital domain. Whatever is appropriable to the needs of the system, is carried along on its errand so quietly that its presence is not felt, and can hardly be distinguished. Unhealthful substances, on the other hand, cause disturbance of various kinds within the vital organism, consequent on the efforts of the vital organs to cast them out. A substance is a stimulant, because the vital powers are aroused in an endeavor to cast it out through the skin, producing thereby superficial excitement. A tonic is the same, only it is cast out more slowly. Sedatives and narcotics cause their peculiar effects, because the vital forces elect to cast them out through the internal organs, thus causing undue circulation to the centre. A substance is an emetic because it is violently ejected by the stomach through the mouth; it is purgative, cathartic, laxative, or aperient, when ejected through the bowels; diuretic, when the kidneys expel it; dia-

phoretic, when carried out by the sweat glands; cholagogue, when carried out of the circulation by the liver, and so on, through all the list of abnormal agents.

The difference between action of the vital organs in relation to unhealthful substances, and their action in relation to health agencies, is the difference between war and peace. The stimulation of the medicine-man's nervines is the stimulation of war, the excitement of carnage, the desperate efforts of the vital organism toward self-preservation. Emesis is a violent protest of the stomach and auxiliary organs against the outrage committed upon them; catharsis is an energetic protest of the bowels; cholagogues, of the liver; nervines, of the nerves, etc., etc. These actions of the system are diseased actions; and disease is organic war—a struggle for existence, an effort of the vital organs in self-defence, to cast out intruders or repair damages; while health, on the other hand, is the normal action of all the organs in normal relations to all things.

DISEASE AND ITS TREATMENT.—No. 13.

BY ROBERT WALTER, M.D.

THE MODUS OPERANDI OF DISEASE.

OUR subject is not only a vast and important one, but it is new. It is the outgrowth of new ideas regarding the essential nature of disease and the action of medicines. We have simply reversed the medical problems. The old ideas made disease an *object* to be acted upon, and medicines the actors to act upon it. We have reversed the order, and made the human organism the *actor*, disease the *action*, and medicines the *objects* of the action. We have arrived at our conclusions in this way; first, if disease were a material existence, it would be described by its size, weight, shape, color, or other appearances; but, inasmuch as all its symptoms invariably indicate action instead of tangible existence, and for other reasons, *we know it is an action*. Then again, inasmuch as medicines are material substances, and inertia or *incapacity to act* is an inseparable character-

istic of all matter, while on the other hand action is an inseparable characteristic of life, we know that whenever action takes place between the dead matter and the living organs, it should always be credited to the living and not to the dead. To reverse it, as medical men invariably do, is simply to falsify the truth, and put absurdity in the place of sense.

Let it be understood, however, that we do not dispute concerning the action that takes place between masses of matter—mechanical action; nor concerning that which takes place between the atoms of matter—chemical action; but only regarding that which occurs between the living organism and dead substances. We deny the medicinal or vital action that is claimed for medicines and other substances.

Inasmuch, therefore, as disease is an *action*, it has a *mode of action*, which we venture to say is entirely explainable.

There is no *mystery* connected with it. How medicines act, on the other hand, is still wrapped in impenetrable mystery, if we accept the testimony of medical men. All efforts to explain their *modus operandi* has resulted in failure. Neither the great breadth of medical observation, the variety of medical experience, nor the profundity of medical reasoning, has yet succeeded in fathoming this remarkable problem.

There is nothing so obscure as infinite nothingness; nothing so incomprehensible as that which does not exist; and no mystery so mysterious as the workings of a vain imagination. The resting-place of the mud turtle that carried the elephant who bore aloft on his back this world of ours, was no more mysterious and unexplainable than is the power of ipecachuana or belladonna or elaterium, or any other substance, good, bad, or indifferent, to act medicinally on the living system.

We would commend to our medical brethren the lesson of the professor who propounded this question to his class; "Why does salt water begin to freeze at the bottom, while fresh water begins to freeze at the top?"

Thirty-nine students spent twenty-four hours in framing plausible and ingenious theories to explain the fact; but the fortieth student answered: "It doesn't do it, sir." "How do you know?" "Because I tried it last night."

We should always be sure of our facts before we attempt to explain them.

Artemus Ward, in his "Thrilling Scenes in Dixie," has left on record an excellent illustration of how external things act upon the living organism. He says: "We riz to our feet agin, and by a sudden and adroit movement I placed my left eye agin the Secesher's fist. We rushed into each other's arms and fell under a two-hoss wagon. I was very much exhausted, and didn't care about gettin' up agin, but the man said he reckoned I'd better, and I concluded I would. *He pulled me up*, but I hadn't been on my feet more'n two seconds afore the ground flew up and hit me in the head."

No, no, it won't do. We are compelled to adopt the doubting student's answer, and say, "It doesn't do it, sir." Calomel acts on the liver in the same way that food acts on the stomach; jalap acts on the bowels just as urine acts on the kidneys; the emetic acts on the stomach just as Artemus's eye acted on the Secesher's fist; and they all act on the vital system in precisely the same manner that the ground flew up and hit Artemus in the head.

Once we have detected the false ideas engendered by centuries of false teaching, we will perceive that medicines, food, drink, etc., are the objects of vital action, not the subjects of it; are the acted upon, not the actors. It is much more correct to say that John eats food, than that food eats John; that the stomach turns food into chyme, and the other organs turn chyme into blood, than to say that food turns itself into chyme and blood. It may be proper to say that the liver acts upon the calomel, and expels or tries to expel it; but it will never do to say that calomel acts on the liver.

All action in the living system may be classed under two heads; and all things that may be introduced into it, as causes of action, or objects to be acted upon, may also be classed under two heads. First, we have normal vital action, or health; and the class of things always acted upon in this condition, may be described as "things usable," or as things normally disposable; that is, things that may in some manner contribute to the health of the individual using them, or which are certainly not inimical to that health. Given this action and these relations, and health must be maintained just as surely as water runs down hill. It is the normal condition; and normal conditions are always maintained in the absence of abnormal influences.

These things which we thus describe as usable, are air, light, food, water, clothing, exercise, rest, sleep, magnetism, etc., in proper quality and quantity, and at proper times. These are the *means* of support to both life and health; but let us not mistake the *means* for the thing

itself. They neither constitute health, nor do they give to the organism strength, vigor, activity, nor any other of the characteristics of health, as some would have us believe. The living principle uses these things wherewith to maintain and perpetuate itself; but the things do not make the living principle. Food and air do not *make* the organs or organisms; but under certain conditions they *are made* into organs and organisms.

Secondly, we have abnormal vital action, or disease; and the class of things always necessary to induce this condition (see article No. 4, June, 1873) are best described as the use of things obnoxious to the vital instincts and the abuse of things normal. These are the causes of diseased action, but they are not the actors, any more than it is our mill-dam that overflows our neighbor's land. They are simply the causes that necessitate the diseased action, because of the law of self-preservation in the organism, just as the dam built across the river necessitates overflow because of the law of attraction of gravitation in matter.

Drug medicines must be classed under the head of things obnoxious to the vital instincts. In the first place they are, as a rule, exceedingly repugnant to the instincts, especially of the unperverted child, so as to require that they be disguised in various ways in order to permit of being swallowed. Following this comes violent action on the part of the various organs, in an endeavor to eject them. This action, as every one knows, is always abnormal, and does not in any sense differ essentially from diseased action resulting from any other cause. The effect of a purgative is very similar to a diarrhoea or dysentery; that of an emetic is not essentially different from vomiting in cholera morbus. The strychnine given by a medical man is not at all different in its effects from that taken accidentally in the same dose, nor the effect of opium in any way modified, because it is used as an indulgence. "Medicines are," as Professor Martyn Paine, before quoted, intimates, "remote causes of disease," and what they accomplish in

the living system, according to this same standard author, is to "cure one disease by producing another."

All that can be said, therefore, of the *modus operandi* of medicines, is that they are causes of disease, the disease being an action of the living system resulting from their introduction into it.

But how and why? If poisons do not act on the vital organism, how is it that they often cause violent death? The fact thus stated, we admit; and its answer is really the turning point of the whole question. It is just such another question as might have been propounded to Newton in these words, If your law of attraction of gravitation causes everything to be drawn to the centre, how is it that steam, smoke, gases, balloons, etc., go upward? Here are facts that oppose your theory; how will you explain them?

Everybody now knows that, even against all appearances, these facts sustain Newton's law, instead of opposing it. Hence we should not allow ourselves to be deceived by appearances. These undoubtedly favor the idea that poisons act very energetically, and by their own inherent force kill people, no matter how difficult it may be to explain their precise *modus operandi*.

Accepting as we do the position that medicines, poisons, food, etc., do not act on the living structure, but that the living organs act upon them, we seem to be forced to the alternative that in all cases of violent or premature death, the vital structures kill themselves. This is just what we claim. Poisons do not kill folks, but they cause death; medicines neither kill nor cure, but they are causes of both disease and death; bad habits are not disease, but they are causes of disease. Anything external to the living system may be a cause of modifications in the actions of that system; but the action itself, whether normal or abnormal, whether terminating in health or death, is always the action of the vital powers themselves.

But does not this disprove your law of self-preservation? If self-preservation is the first law of life, how is it possible that

the vital structures can kill themselves? And again, does it not disprove your theory that disease is remedial effort? How can an effort that kills a man be remedial?

These are reasonable questions, and very plausible objections, but not more reasonable or plausible than the flying of a kite is against the law of attraction of gravitation. See it tugging away at its string. The attraction is surely *from* the centre, not *to* it. Newton, you must be wrong. The kite goes upward, not downward.

Philosophers tell us that all matter is held together by the force of attraction, and we believe it; but look at that water, flying off into space in the shape of steam. Where is the attraction here?

All such facts are explainable, subject to their great laws; and when thus explained, they prove the law, instead of

disproving it. Just so with these objections to the law of self-preservation, the laws of disease, the effects of poisons, etc.; the apparent contradiction, when properly interpreted, proves the law. Self-preservation is the first law of life, though what we call death comes to all; disease is a remedial effort, even though it may end in death (for efforts are not always wise in their direction or successful in their termination); medicines do not act on the living system, even though varied and wonderful actions follow their introduction into it; poisons are both lifeless and inert, even though they are said to be vital agents and marvelously powerful. When facts are explained according to the great laws of things, appearances are often wondrously changed. The kite flies, but it doesn't disprove attraction of gravitation.

(To be continued.)

POOR MRS. HARRIS.

Statement of a Case by a Physician. From "Smith's Illustrated Bazar."

I WAS once sent for in great haste to attend a man of respectability, whose wife, a lady of intelligence and refinement, had discovered him in his room, lying senseless upon the floor.

On arriving at the house, I found Mrs. Harris in great distress of mind.

"What is the matter with Mr. Harris?"

I asked, on meeting his lady, who was in tears, and looking the picture of distress.

"I'm afraid it is apoplexy," she replied.

"I found him lying upon the floor, where he had, to all appearances, fallen suddenly from his chair. His face is purple, and though he breathes, it is with great difficulty."

I went up to see my patient. He had been lifted from the floor and was lying upon the bed. Sure enough, his face was purple and breathing labored; but somehow the symptoms did not indicate apoplexy. Every vein in his head and face was filled, and he lay perfectly stupid; but still I saw no clear indication of an actual or approaching congestion of the brain.

"Hadn't he better be bled, doctor?" asked the anxious wife.

"I don't know that it is necessary," I replied: "I think if we let him alone it will pass off in the course of a few hours."

"A few hours! He may die in half an hour!" she exclaimed.

"I don't think the case so dangerous as that, madam."

"Apoplexy not dangerous?"

"I hardly think it apoplexy."

"Pray, what do you think it is, doctor?"

Mrs. Harris looked anxiously into my face as she spoke.

I deliberately hinted that he might possibly have been drinking too much brandy; but this she positively and almost indignantly objected to.

"No, doctor, I ought to know about that," she said. "Depend upon it, the case is more deeply seated. I am sure he had better be bled. Won't you bleed him, doctor? A few ounces of blood taken from his arm may give life to the stagnant circulation of blood in his veins."

Thus urged, I, after some reflection, ordered a bowl and bandage, and opened a vein, from which the blood flowed freely, and relieved him of about eight ounces of his circulating medium. But he still lay insensible as before, much to the distress of his poor wife.

"Something else must be done, doctor," she urged, seeing that the bleeding had accomplished nothing. "If my husband is not quickly relieved he must die."

By this time several friends and relatives, who had been sent for, arrived, and urged upon me the adoption of some more active means for restoring the sick man to consciousness. One proposed blisters all over the body, another a blister on the head, and another, immersion in hot water. I suggested that it might be well to use a stomach-pump.

"Why, doctor?" asked one of his friends.

"Perhaps he has taken some drug," I replied.

"Impossible, doctor," said his wife. "He has not been from home to-day, and there is no drug of any kind in the house."

"No brandy?" I ventured the assertion again.

"No, doctor! No spirits of any kind, not even wine, in the house," returned Mrs. Harris, in an offended tone.

I was not the regular family physician, and had been called in to meet the alarming emergency, because my house happened to be nearest to the dwelling of Mr. Harris. Feeling my position to be a difficult one, I suggested that the family physician had better be called.

"But the delay, doctor?" urged the friends.

"No harm will result from it, be assured," I replied.

But my words did not assure them. However, as I was firm in my resolution not to do anything more for the patient until Dr. Solly came, they had to submit. I wished to make a call of importance in the neighborhood, and proposed going—to be back by the time Dr. Solly arrived; but the friends of the sick man would not suffer me to leave the room.

When Dr. Solly came, we conversed aside for a few moments, and I gave him my views of the case, and stated what I had done and why I had done it. We then proceeded to the bedside of the patient. There was still no sign of approaching consciousness.

"Don't you think his head ought to be shaved and blistered?" asked the wife, anxiously.

Dr. Solly thought a moment, and then said, "Yes, by all means. Send for a barber—and also a fresh fly-blister, four inches by nine."

I looked into the face of Dr. Solly with surprise. It was perfectly grave and earnest. I hinted to him my doubt of the good that mode of treatment would do; but he spoke confidently of the result, and said that it would not only cure the disease, but, he believed, take away the predisposition thereto, with which Mr. Harris was affected in a high degree.

The head of Mr. Harris was shaved, and Dr. Solly applied the blister with his own hands, and which completely covered the scalp from forehead to occiput.

"Let it remain on for two hours, and then make use of the ordinary dressing," said Dr. Solly. "If he should not recover during the action of the blister, don't feel uneasy. Sensibility will be restored soon after."

I did not call again, but heard from Dr. Solly the result.

After we left, the friends stood anxiously around the bed upon which the sick man lay; but though the blister began to draw, no signs of returning consciousness showed themselves, further than an occasional low moan or an uneasy tossing of the arms. For full two hours the burning plaster parched the tender skin of Mr. Harris's shorn head, and was then removed. It had done good service. Dressings were then applied; repeated and repeated again; but still the sick man lay in a deep stupor.

"It has done no good. Hadn't we better send for the doctor?" suggested the wife.

Just then the eyes of Harris opened,

and he looked with half stupid surprise from face to face of the anxious group that surrounded the bed.

"What's the matter?" he at length said; at the same time, feeling a strange sensation about his head, he placed his hand rather heavily thereon. "Heavens and earth!" He was now fully in his senses. "Heavens and earth! what ails my head?"

"For mercy's sake keep quiet," said his wife, the glad tears gushing over her face. "You have been very ill. There, there, now!" and she spoke soothingly. "Don't say a word, but lie very still."

"But my head! What's the matter with my head? It feels as if scalded. Where's my hair? Heavens and earth, Sarah, I don't understand this! What's my arm tied in this way for?"

"Be quiet, my dear husband, and I'll explain it all. Oh, be very quiet! Your life depends upon it."

Mr. Harris sank back upon the pillow, from which he had risen, and closed his eyes to think. He put his hand to his head, and felt it tenderly from temple to temple and from nape to forehead.

"Is it a blister?" he at length asked.

"Yes, dear. You have been very ill. We feared for your life," said Mrs. Harris, affectionately. "There have been two physicians in attendance."

Harris closed his eyes again. His lips moved. Those nearest were not much edified by the whispered words that issued therefrom. They would have sounded very strangely to ears polite and refined. After this, he lay for some time quiet.

"Threatened with apoplexy, I suppose?" he then said, interrogatively.

"Yes, dear," replied his wife. "I found you lying insensible on the floor, on happening to come into your room. It was most providential that I discovered you as I did, or you would certainly have died."

Harris shut his eyes and muttered something, but its meaning was not understood.

Finding him out of danger, friends and relatives retired, and the sick man was left alone with his family.

"Sarah," he said, "why, in heaven's name, did you permit the doctors to butcher me in this way? I am laid up for a week or two, and all for nothing."

"It was to save your life, dear."

"Save ——"

"Hu-u-sh! There, do for heaven's sake be quiet!—everything depends upon it!"

With a gesture of impatience, Mr. Harris shut his eyes, teeth and hands, and lay perfectly still for some minutes. Then he turned his face to the wall, muttering in a low, petulant voice, "Too bad! too bad! too bad!"

I had not erred in my first and my last impression of Harris's disease, neither had Dr. Solly, although he used a very extraordinary mode of treatment. The facts of the case are these:

Harris had a weakness. He couldn't taste wine or strong drink without being tempted into excess. Both himself and friends were mortified and grieved at this; and they, by admonition, and he, by good resolutions, tried to bring about a reform. But to see was to taste; to taste was to fall. At last his friends urged him to shut himself up at home for a certain time, and see if total abstinence would not give him strength. He got on pretty well for a few days, particularly so as his coachman kept a well-filled bottle for him in the carriage-house, to which he not unfrequently resorted; but a too ardent devotion to this identical bottle brought on this supposed apoplexy.

Dr. Solly was right in his mode of treating the disease after all, and did not err in supposing that it would reach the predisposition. The cure was effectual. Harris kept quiet on the subject, and bore his shaved head on his shoulders with as much philosophy as he could muster. A wig, after the sores made by the blisters had disappeared, concealed the barber's work until his own hair grew again. He never ventured upon wine or brandy, for fear of apoplexy.

When the truth leaked out, as such things always will, the friends of Harris had many a hearty laugh, but they wisely

concealed from the object of their merri-
ment the fact that they knew anything
more than appeared of the supposed ill-
ness.

[As a general rule, we are opposed to

bleeding and blistering, but in cases like
this, we should be glad to see it gener-
ally practiced. A few duckings in a
horse-pond would not be bad; though
the above treatment is good.]

SANITARY IMPURITIES.

BY R. T. TRALL, M.D.

So long as physicians believe and teach that poisonous drugs are wholesome medicines, so long may we expect them to believe and teach that impure water and adulterated food are better than the clean articles. These notions seem to run together as naturally as drugs and death. One who studies "Sanitary Science" from the Book of Nature finds it hard to comprehend the mysteries of medical science and the healing art, as viewed from the orthodox stand-point. In the exercise of its common sense, and in view of drunkenness and its consequent vices and crimes all over the land, the world supposes that alcohol is a very disastrous as well as an exceedingly devitalizing agent; but medical books, written by the "highest authority," and physicians of the greatest repute, assure us that the thing is not only vitalizing, but actually good food! We look on tobacco-using as the most filthy and degrading habit to which a human being was ever addicted. And when we tell the chewer, smoker, or snuffer that he "smells awful," he quotes experienced doctors and medical journals to prove that the filthy weed, so far from being a stinking thing, is really hygienic, and if not food itself, a conservator of food!

We are led into these dirty reflections by reading the report of the sayings of several learned medical gentlemen of New York, on the occasion of a recent meeting of the American Public Health Association in that city. Among the various papers, wise and otherwise, which were presented, was one read by Professor Chandler on "The Sanitary Chemistry of Waters." In criticising this document, we have to say that the title

is very absurd to begin with, as there is no more chemistry, sanitary or insani-
tary, in water than there is bicarbonate of soda in metaphysics. Water is water; that is to say, water is a fluid composed of certain proportions of oxygen and hydrogen. The "chemical elements" which are found *in* water are invariably foreign ingredients, and have no more to do with water, *as water*, than ipecac or common salt has to do with victuals, when accidentally or intentionally mixed with it. These foreign ingredients are simply poisons or impurities mixed with water, or held in solution by it, and never chemically combined with it. The following extract from the Professor's paper will show in what direction his ideas of *sanitary chemistry* are drifting:

"There are many kinds of impurities in the open wells, either mineral deposits or refuse from the drains. Impurities in the pond waters are in solution. They are few and not greatly objectionable. Rivers are generally turbid, owing to the suspended impurities which they contain. The waters for drinking sometimes contain special impurities. At Schenectady and Boston it was shown at one time that the water there drained the cemeteries and contained phosphorus. Recent writers claim that water is healthier for having its proportion of lime and magnesium. It is questionable whether our drinking water ever contained enough mineral matter. The organic impurities in water, such as animals and plants, are by no means objectionable. On the contrary, plants really purify the water. Parasitic worms have been introduced into the body by their presence in drinking water, but it is very rare, and the presence of these organic impurities is seldom objectionable."

What in the name of filth is objectionable, if impurities are not? Does it necessarily follow that because parasites purify the water, we should drink the parasites? Would it not be better to filter out the parasites, and then drink

the pure article? Then no parasitic purification would be necessary in our stomachs and bowels. Does it follow that because hogs are scavengers, we should eat them? This is as contrary to Hygienic Law as it was to the Levitical code.

We have read in some medical book, and we have noticed in many invalids, that impurities, especially mineral ingredients, are the common causes of several distressing ailments. But, says Professor Chandler, "Our drinking water never contains enough of it!" Then why not supply our Atlantic cities with sea-water, which is saturated with it? Why bring the pure Croton fifty miles through rocks, under mountains, and over rivers, when a few pumps along the North and East rivers would furnish an abundant supply of water as impure and mineralized as any drug doctor could desire? Or if this would be too much of a good thing, why not employ a Board of Pharmacologists to drug and mineralize the water we are to drink to the wholesome standard? The springs, wells, reservoirs, hydrants, tanks, tubs, pails, pitchers, or whatever else contains the "questionable" pure water, might readily be medicated into a sufficiency of mineral matter—say a conglomeration of salt, lime, magnesia, sulphur, phosphorus, carbonates, chlorides, etc. Will not some sanitary philanthropist offer a premium for the discovery of the requisite proportions of the proper mineral ingredients, with due sprinkling of parasites, that shall render pure water a wholesome beverage for man and beast?

FOUL WATER AS A CAUSE OF FEVER.—

A correspondent of the Schenectady, N. Y., *Star* writes from Rexford Flats: Two miles east from here resides Mr. T. Hays, son-in-law of William Shepard, Esq., of Waterford. Mr. Hays's oldest son, William, now lies ill with typhoid fever, in the fourth week of his illness, and from his appearance this morning he cannot survive. Mr. Hays and wife are both ill of what I fear are premonitory symptoms of the same fever. This morning I brought home a specimen of the water from their well. The water has a good appearance and no unpleasant odor; but upon submitting it to the microscopic test, there were revealed numerous forms of both dead and living animalculæ.

"REMORSE."

BY FRANK OLIVE.

I MET him on the street one morn—a youth upon whose head
Pomade and twenty summers their balmy sweets had shed;
A slender youth, in Life's May-time, when skies appear serene,
And foliage, and neckties, and things looked glad and green.

But care sat on his pallid brow and marked his haggard cheeks,
And plowed his paper-bosom in unseemly rumpled streaks;
And melancholy dimmed his eye, obscured its lustrous flash,
And was denoted by the state of his unkempt mustache.



"What ails thee, hapless youth?" said I. He heaved a deep-drawn sigh
Of mingled woe and cardamon, and thus he made reply:
"I am that epidemic known as the Druggist's Clerk,
Haunted by the ghostly spectres of the victims of my work!"

"Through all the day they follow me, a ghostly retinue,
And through the night surround my bed, bent on an interview;
They give me neither rest nor peace, for each avenging shade
Revives the horrid memory of blunders that I've made.

"The spectral infants glare at me, and though their lips are dumb,
Too well I know the victims of perverted laudanum!
And those old ghosts that stare at me with bleared, accusing eyes,
Were folks cut off by arsenic, to their extreme surprise.

"Prescriptions cannot always be interpreted at sight,
And *Arrowroot*, on paper, sometimes reads like *Aconite*;
But when a man gets the wrong stuff, and goes away and dies,
And then his ghost goes back on me—'tis conduct I despise!

"I might endure the strangers' ghosts; but both my parents died
Before my blunder in their case could be quite rectified;
And now their spirits visit me, and drive me almost wild,
By their reproachful glances at their orphan child!"

Filial emotion choked him here, and while he wiped his nose,
I wrote a brief prescription his excitement to compose.
"Take this composing draught," said I, "and mix it in your store,
And the ghosts of poisoned customers will trouble you no more."

I builded wiser than I knew. That absurd clerk misread
The recipe, as usual; and then he went and fed
Himself with *Acid Prussicum*, whereas, I wrote, quite plain:
"One ounce of *Aqua Pura*, and *Lupulus* one grain."

POPULAR PHYSIOLOGY—ILLUSTRATED.

CHAPTER VII.—Continued.

MUSCLES OF THE UPPER EXTREMITIES.

THESE are divided by anatomists into several groups, as they pertain to different regions, as *thoracic, scapular, humeral, brachial radial, ulnar and palmar*, meaning *shoulder, arm, fore-arm, waist, hand, and fingers*.

In Fig. 100 are represented the principal muscles of the thoracic region, which perform the various motions around the shoulder joint, and co-operate in the respiratory function.

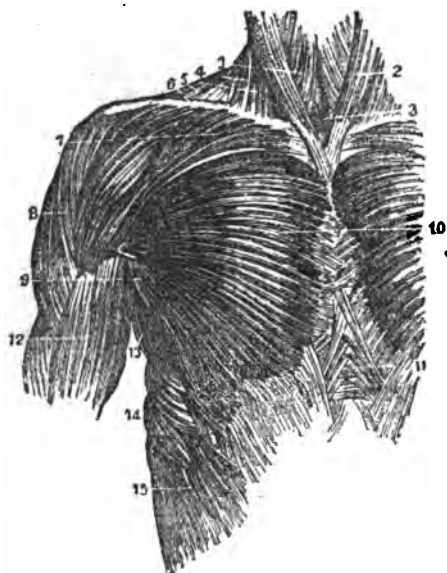


FIG. 100.—MUSCLES OF THORACIC REGION.

1. Sterno-hyoid. 2. Sterno-cleido-mastoid. 3. Sterno-thyroid. 4. Sterno-cleido-mastoid. 5. Edge of the trapezius. 6. Clavicle. 7. Clavicular origin of the pectoralis major. 8. Deltoid. 9. Fold of pectoralis major on the anterior edge of the axilla. 10. Middle of the pectoralis major. 11. Crossing and interlocking of fibres of the external oblique of one side with those of the other. 12. Biceps flexor cubiti. 13. Teres major. 14. Serratus major anticus. 15. Superior heads of external oblique interlocking with serratus major.

The principal muscles of the scapular region are shown in Fig. 101, which is a front view of those of the upper arm.



FIG. 101.

FIG. 102.

FIG. 101.—FRONT MUSCLES OF THE UPPER ARM.

1. Coracoid process of the scapula (shoulder blade). 2. Ligament between scapula and clavicle (collar-bone). 3. Coraco-acromial ligament. 4. Subscapularis. 5. Teres major; vessels pass through the triangular space above this muscle. 6. Coraco-brachialis. 7. Biceps. 8. Upper end of the radius. Brachialis anticus. 10. Internal head of the biceps.

FIG. 102.—TRICEPS MUSCLE.

1. Its external head. 2. Its long, or scapular head. 3. Its internal, or short head. 4. Olecranon process of the ulna. 5. Radius. 6. Capsular ligament.

There are only four muscles of the arm (humeral region), the principal of which are the *biceps* (two-headed), and the *triceps* (three-headed), which perform the most important movements of the arm upon the shoulder joint. The latter muscle is shown in Fig. 102.

The muscles of the brachial region are twenty in number, which are divided by anatomists in four layers, as represented in the following engravings:

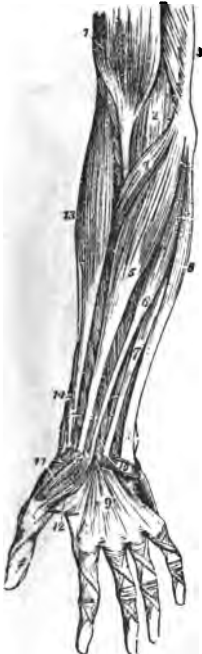


FIG. 103.

FIG. 103.—SUPERFICIAL ANTERIOR LAYER.

1. Lower part of the biceps muscle, with its tendon.
2. Part of the brachialis anticus. 3. Part of the triceps.
4. Pronator radii teres. 5. Flexor carpi radialis. 6. Palmaris longus. 7. One of the fasciculi of the flexor sublimis digitorum. 8. Flexor carpi ulnaris. 9. Palmar fascia. 10. Palmaris brevis. 11. Abductor pollicis. 12. One portion of the flexor brevis pollicis.
13. Supinator longus. 14. Extensor ossis metacarpi, and extensor primi internodii pollicis, curving around the lower border of the fore-arm.

FIG. 104.—DEEP ANTERIOR LAYER.

1. Internal lateral ligament of the elbow joint. 2. Anterior ligament. 3. Orbicular ligament of the head of the radius. 4. Flexor profundus digitorum. 5. Flexor longus pollicis. 6. Pronator quadratus. 7. Adductor pollicis. 8. Dorsal interosseous muscle of the middle finger, and palmar interosseous of the ring

In Fig. 104 is represented the deep layer of the muscles of the fore-arm.

In Fig. 105 is seen the superficial layer of the muscles of the posterior aspect of the fore-arm.

Synorial Bursa.—The tendons of the flexor and extensor muscles of the fore-arm are provided with small membranous sacs, filled with a glassy fluid, which serve as cushions for the tendons to pass upon.

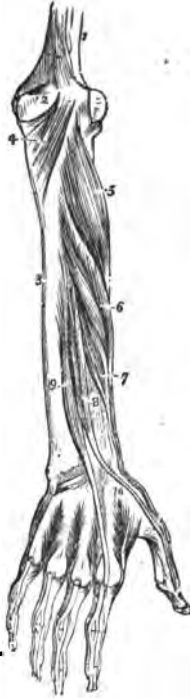


FIG. 104.

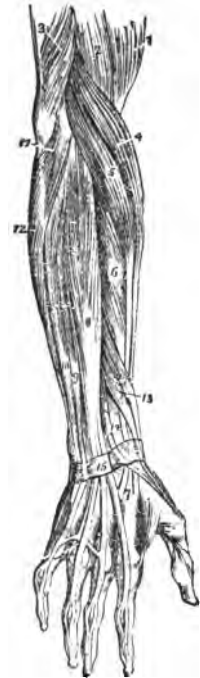


FIG. 105.

finger. 9. Dorsal interosseous muscle of the ring finger, and palmar interosseous of the little finger.

FIG. 105. SUPERFICIAL LAYER POSTERIORLY.

1. Lower part of the biceps. 2. Part of the brachialis anticus. 3. Lower part of the triceps inserted into the olecranon. 4. Supinator longus. 5. Extensor carpi radialis longior. 6. Extensor carpi radialis brevior. 7. Tendons of insertion of these muscles. 8. Extensor digitorum communis. 9. Extensor minimi digiti. 10. Extensor carpi ulnaris. 11. Anconeus. 12. Part of the flexor carpi ulnaris. 13. Extensor ossis metacarpi and extensor primi internodii, lying together. 14. Extensor secundi internodii; its tendon is seen crossing the two tendons of the extensor carpi radialis longior and brevior. 15. Posterior annular ligament. The tendons of the common extensor are seen upon the back of the hand, and their mode of distribution on the dorsum of the fingers.

The advantages of this arrangement are sufficiently obvious, considering the exposed situation and rapidity of motion of the tendons, and the feeble protection they receive from the small quantity of flesh and their integument of the wrist. These bursæ are situated where the tendons pass beneath the annular ligament of the wrist, and on the back of the wrist.

In Fig. 106 are seen the muscles which constitute the deep layer of the fore-arm posteriorly.



FIG. 106.—DEEP LAYER POSTERIORLY.

1. Lower part of the humerus. 2. Olecranon, process of the elbow joint. 3. Ulna. 4. Anconeus. 5. Supinator brevis. 6. Extensor ossis metacarpi pollicis. 7. Extensor primi internodii pollicis. 8. Extensor secundi internodii pollicis. 9. Extensor indicis. 10. First dorsal interosseous ligament. The other three interossei are seen between the metacarpal bones of their respective fingers.

FIG. 107.—MUSCLES OF THE HAND.

1. Annular ligament. 2, 2. Origin and insertion of the abductor pollicis, the middle portion being removed. 3. Flexor ossis metacarpi. 4. One portion of the flexor brevis pollicis. 5. Its deep portion. 6. Adductor pollicis. 7, 7. Lumbricales, arising from the deep flexor tendons, on which the numbers are placed, the tendons of the flexor sublimis having been removed from the palm. 8. One of the tendons of the deep flexor, passing between the two terminal slips of the tendon of the flexor sublimis, to reach the last phalanx. 9. Tendon of the flexor longus pollicis passing between the two portions of the flexor brevis to the last phalanx. 10. Abductor minimi digiti. 11. Flexor brevis minimi digiti; the edge of the flexor ossis metacarpi is seen projecting beyond the inner border of the flexor brevis. 12. Prominence of the pisiform bone. 13. First dorsal interosseous muscle.

The muscles of the hand produce the varied motions of abduction, adduction,

and flexion, as their names import. They are shown in Fig. 107.

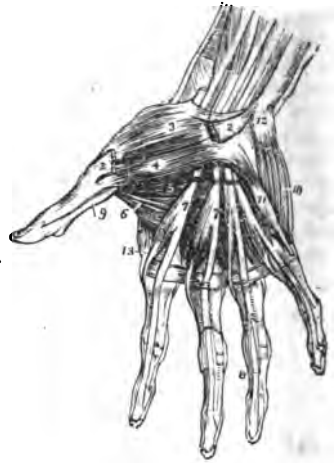


FIG. 107.

In addition to the above muscles of the hand, there are four muscles of the ulnar region, and three sets of muscles of the palmar region, all of which are subservient to the muscles of the fingers and thumb.

A TOUCHING SCENE AT MEMPHIS.

The *Memphis Appeal* thus describes the coming of the frost at Memphis :

While it was yet twilight, and ere the dappled east had yet opened the gates of day to the rising sun, hastily attired men and women, with semi-nude children in their arms, were out in the streets breathing the precious air of the purifying frost. Here, stooping down, one gathered a handful of the glittering hoar-frost, which, pure and beautiful, lay upon the earth, and gazing on it with somewhat of the gladdening spirit with which the Israelites gathered the manna in the desert of Arabia, exclaimed: "O God! we thank Thee for this blessing!" Others came and touched with reverential finger the pure, cold messenger of health, as if to satisfy themselves, like the half-believing Thomas of old, that the Savior of the city had not risen but descended from Heaven, to save the people from the destroying angel of the pestilence. Groups of men and women moved from place to place, to prove by cumulative evidence that indeed it was frost, and not some optical delusion; that the wished-for guest had not merely confined its visitations to one locality, but enjoyed the freedom of the city. Here a pale face, once a handsome woman, with a tender babe at her breast, knelt down on the cold ground to thank God that the frost had come! Poor stricken heart! she

and her orphan boy were all that the pestilence had spared out of a once happy family. Strong men bare-headed and bare-armed, walked excitedly hither and thither, rejoicing in the fact that a physician had come, to whose nostrums the whole faculty must yield precedence as the only true panacea for the terrible yellow fever. Windows and doors were thrown open, woolen and cotton garments were exposed to the disinfecting agency of the cold and rarified air, and everywhere in the city, as well as in the vicinity of the afflicted region, the enthusiasm was as marked, if not as fervent and joyous.

[Is there no other way of putting down yellow fever but by freezing it out? What would be the effect of thorough drainage

—of pure water—of healthful food? Is it the providence of God, or is it *unclean-ness* which permits the ravages of epidemics? Has “hog and hominy,” “whisky and tobacco,” “quack medicines,” neglect of bathing, uncleaned privies, filthy cellars, etc.—have these anything to do towards breeding a pestilence? Frost is certainly a purifier; so is fire; so is death and decay. But *we* can do *something* towards warding off epidemics, by keeping things clean; the atmosphere pure; and all things according to Hygienic principles.]

TOBACCO-USING—THE REMEDY.

In reply to inquiries from correspondents as to “How to leave off the Use of Tobacco,” we publish the following from TOBACCO-USING,* by Dr. Trall :

THE REMEDY.

“Touch not, taste not, handle not.” Do not think for a moment of substitutes. Abandon the foul thing at once and forever. Do not try abstinence as an experiment, but adopt it as a duty, a principle, a necessity. Differences of opinion exist, and much discussion has been had on the question, whether it is better to abandon the habit of tobacco-using at once, or leave off by degrees. My answer is, *Leave off at once*. The experiment has been thoroughly tested, in cases of liquor-drinkers, of leaving off gradually or suddenly, and the result has always been in favor of breaking off at once.

“Dr. Day, the Superintendent of the Inebriate Asylum, publishes a letter, in which he advocates the practice of totally withdrawing from the habitual drinker all liquor, in opposition to the prevalent idea that the patient must be gradually weaned from the use of alcoholic substances, and founds his assertion on the fact that he has treated 2,500 cases of inebriety during the past ten years. He believes that a man who has been in the habit of drinking a quart of liquor per day will suffer more by being allowed only a pint, and gradually less, within the same lapse of time, than he will if he is kept altogether from the use of it. The blood of such patients is, in his opinion, poisoned

by the substances which alcoholic liquors contain, and he does not, therefore, see the necessity of administering any more of such poison, even in infinitesimal doses. He believes that nothing short of absolute abstinence will keep the inebriate cured after he is raised up from his former life of degradation.”

The morbid desire for tobacco will be overcome with much less suffering on the whole by discarding the poison at once. The least indulgence perpetuates the disordered condition of the nervous system on which the desire depends. There is no safety for the patient until the morbid *irritability* of the nervous system is subdued, and its normal *sensibility* restored; and this can never be accomplished so long as the least particle of tobacco is habitually used. An infinitesimal dose—the least quantity that the organic instincts can appreciate—is sufficient to prolong forever the shattered state of the nervous system; and, until this is restored, the patient is not safe for a moment. Until then, he can have no self-sustaining will-power. Until then, the smell of tobacco, or the sight of a cigar, may reproduce the morbid craving with irresistible force.

Much, however, may be done to mitigate the miseries of the sufferer during his transition state; and having had a large experience in the management of these cases, I may confidently venture the following practical suggestions :

For a few days the patient should be

* An Essay on Tobacco-Using, being a Philosophical Exposition of the Effects of Tobacco on the Human System, by R. T. Trall, M.D. Price, postpaid, 25 cts.

entirely quiet. He should abstain from business, and do as little thinking as possible. He should take a warm bath daily; and whenever he has severe headache, or feels distracted with restlessness, he should lie down, take a warm foot-bath, and have *warm* wet cloths—as warm as he can well bear—applied to the head. He will also find it greatly advantageous to adopt a very simple dietary. He should, for a week or two at least, live principally on good ripe fruits and plain bread; and even eat sparingly of these. All overloading of the stomach will occasion headache, and aggravate the general feeling of wretchedness. He should also exercise very moderately.

These rules, adhered to for a few days, will emancipate the patient from one of the worst of slaveries that ever degraded human nature. But if weeks, or months, or years, were required, the victory would be worth all it cost. It is rare, however, when the plan I have briefly sketched is rigidly adhered to, that more than one or two weeks is required to redeem, regenerate, and disenthral the most besotted devotee of tobacco. And in a few months thereafter he will look back upon his former condition, and upon the habit of tobacco-using, with a loathing and abhorrence of which he now can have no conception; and probably would not again be thus besotted for all the wealth of this world.

NOTES OF TRAVEL IN UTAH.

BY MRS. FARRIE F. YOUNG, M.D.

CORINNE, Utah, has just obtained a water ditch from the Mialade river equal to the irrigation of one hundred thousand acres of land. The soil is good and strong—sandy, gravelly, and adobe, according to its relation to the lake and rivers. The Mormon settlement, six miles distant on the "Mesa," is shaded with trees, and fruitful of peaches, apricots, plums, cherries, apples, Concord and Delaware grapes, and all small fruits. The experiments made about Corinne

warrant the belief that success in every department of mixed farming will crown the efforts of the persistently industrious. Tens of thousands of broad rolling acres, at fair prices, of the Central Pacific Railroad, and of Government land, can be had. This whole vast extended plain will yet have live fences—hedges—shady orchards, nestling homes, with cool porches and flowing streams of water.

Bear River can be tapped whenever united capital shall demand it. Its channel at Corinne is said to be forty feet deep. Puget Sound lumber will build the houses for those too much prejudiced to use adobe. The willow, cottonwood, and locust trees will furnish firewood in a few years from the seed. Coal is abundant.

The water power ought to be made available this year to run a flouring mill at Corinne. The citizens and farmers need this encouragement. The market would be home, and for the Fort Hall country and Montana. Corn does well. Fruit drying would pay. This is a grand and beautiful country; twenty years will prove it. The hills and canyons, and sage-brush, bunch-grass country for hundreds of miles, are unoccupied, excepting by a few roving Indians.

Ogden is a Mormon city, of some six thousand inhabitants, perfectly embowered with shade and fruit trees. The city is some six or eight miles in length by two in width. Each family possesses an acre of land. The streets are very broad; streams of clear water on either side. The houses are mostly adobe brick, with low eaves, wide porches, rambling out and back, as if rooms had been added as the children and the wives increased.

Beside the acre and house, each farmer has on the outside a plat of twenty acres for the mixed crop. Father and sons and team go out to the fields early to plow, plant, or harvest. The women in former days remained at home to card and spin and weave, and fashion the garments. In an hour's walk we saw several spinning-wheels and looms. But as a general thing this year the new fac-

tory cards the wool, spins the yarn, and weaves the cloth.

At night the tired husbandmen return from the fields. About the same hour we hear the "winding horn," and see the dust raised by a band of cattle. Side gates are then opened. A couple of lads on horseback guide the herd. The man with the horn, we suppose, gives the signal to the owners to open the gates. Each cow knows her home, and regularly drops out of the herd at the right place. You perceive, dear reader, we have here, on the edge of the desert, in the shadow of the mountains, an approximation to an "Arcadian" home.

The city of Ogden is divided into wards. Each ward has a bishop and a ward school-house, usually used for Sunday-schools, Sunday-evening and other meetings. Each ward has also a singing-school. Many of the ward houses have

fine cabinet organs. The faithful pay tithing—one-tenth of all incomes, from pumpkins to bank notes. Hence special collections and assessments for salaries and church expenses are unheard of. Once each Sunday the masses go to the tabernacle to listen to the prophet, it may be, or to one or more of his appointed bishops or evangelists. Thus the people [think they] receive direct from God the words of eternal life.

The priesthood claim the right to think for the people. After reading both sides carefully, we feel satisfied that, if the "Old" and "New" Testaments are taken literally as a rule of faith, Mormonism has the best of the argument, polygamy included. There are hundreds of scholarly people, gentiles as well as apostates, who are prepared to give their reasons for believing this.

TO BE SHAKEN BEFORE TAKEN.

IN times past, there may have been used, as remedies, harmless roots, herbs, and barks, such as gentian, catnip, slippery elm, etc., which, when taken with faith, believing in their efficacy, may have done no other harm than to have deluded the innocent, superstitious, and ignorant dupe. The same may have been true with regard to many other whims, signs, and grannysisms handed down from foolish progenitors. *But the poisonous preparations of the swindling quacks of to-day, demands that a stop be put to this whole business.*

The *American Agriculturist*, of recent date, gives a racily written review, under the title of "The Quack Medicine Business," which, it says,

"Is such a thorough fraud from beginning to end that we wonder that it should be almost as successful now as it was fifty years ago. We have kept a very close run of these things for some forty years. One of these quack affairs runs but a short time and falls out of existence. That portion of the community who purchase such stuff are constantly looking for something new. Twenty years ago Townsend's Sarsaparilla was the popular thing. Who hears of it now? Where is the 'Matchless Sanative' that was sure to cure consumption, if

taken in drop doses? The children of to-day do not cry for 'Sherman's Worm Lozenges' as they did a quarter of a century ago, and the stuff that is now ruining the health of thousands and making rich a few, will in ten years be heard of no more." [Does the writer refer to Mrs. Winslow's Syrup, which contains opium, and poisons so many babies?] "Some of these makers have several names under which they put out several different 'medicines,' or, at least, stuff with several bottles and labels. In December of last year we gave an account of the way in which these quack medicines were made. This was written from a general knowledge of the subject and a long acquaintance of the ignorant fellows" [villains] "who deal in such compounds. We have now a communication from a correspondent who has been so situated that he had an inside view of some of the quack medicine establishments, who writes:

"Few have any conception of the magnitude of the patent medicine business. One 'doctor' (!) who runs a variety of medicines—all the same article, by the way, but sold under different names—has over twenty thousand agents employed in vending his beastly preparation. The profit to the manufacturer is immense, as none of it costs more than twelve cents for a bottle retailed at one dollar. One half of this sum goes for bottle, stamp, and label, so that actually the liquid costs about six cents; and for this, deluded mortals pay one dollar, and imagine they get their money's worth.

"The principal ingredients in most of these mixtures are *aloes*, *molasses*, and *water*, with some sort of acid to prevent them from fermenting and becoming sour. One dealer uses *muratic acid*, which, as is well known, is a dangerous poison, and *aloes* is certain to produce that distressing complaint, from which so many suffer, the piles.

"The *modus operandi* of starting this business is to purchase lists of names from swindlers who make a regular business of collecting them" [by advertising Whiskers, or how to Make the Beard Grow, etc.], "and who sell the use of them for about \$10 per thousand. Circulars are then sent to such addresses, offering an agency for the great panacea. Great inducements are offered. People are assured they can easily make from ten to twelve dollars per day. Everything is rose-colored. The plain fact is, agents do not average more than three to four dollars *per year*, and that with much difficulty and trouble.

"The originator of this system of selling medicine is one White, of Pearl Street, New York. Of course, he is a "doctor;" all such are. He has run the same compound under a multitude of names: "Vinegar of Iridin," "Father Pettigrew's Medicine," "Curative Syrup," and others, and under the names of White, Comstock, and Brown.

"A more lucky rogue is a Dr. Huylar, of Amity Street, formerly of 787 Broadway (a hot-bed of such schemers) and of Wooster Street. He followed a very peculiar course of study to acquire his title. He sold stoves, baked bread, took photographs, peddled table-sauce, traveled with a "fakir" show, and finally became a quack doctor. He has prospered, drives fast horses, patronizes pigeon-shooting matches, and wears a small fortune in the way of diamonds. The guiding spirit of this concern is Madam Huylar (formerly Madam Jumel of Mammarial Balm fame). She manages the whole business, and is the authoress of those beautiful, very beautiful stories that grace their numerous pamphlets, and which are remarkable for their absurd improbability and bad grammar. Their "cure all" is the same as White's, but flavored differently. It is, or was, a compound of *aloes*, *cayenne pepper*, *molasses*, *muratic acid*, *valerian*, and other cheap and nauseous drugs. We could give the recipe as it was in full, but the above is all that is necessary to show what kind of stuff it is. They sell it under the various names of "Mother Noble's Healing Syrup;" "Wine of Apocynum," supposed to be run from Thompson Street, the side basement door of Amity Street; "The Electric Health Restorer," from same number as the Apocynum; and "Dr. Johnson's Indian Blood Syrup." This last is advertised from Jersey City. All letters which come to that address are taken from the post-office by a messenger, carried to Amity Street, New York, and there attended to. The "Apocynum" is flavored with carbolic acid, and the "Indian Blood Syrup" with anise. The various enterprises are supposed to be

run by one "King," "Dr. Johnson," "Eastman," "Goodspeed," and others. It is needless to say such persons never existed; they are purely creatures of imagination; only other names for this "Doctor" Huylar.

"They also publish a book called "Seven and Nine Years Among the Comanches and Apaches," giving an account of Eastman's trials and troubles among the Indians; this unadulterated fiction being the joint production of two of Huylar's clerks. Whole pages of it are taken bodily from Catlin's "History of the North American Indians."

"Other infallible remedies of this kidney are the "Parisian Flesh Producer," of the Manhattan Medical Co., run by Elias, of sawdust, counterfeit money, and bogus gift-enterprise notoriety; "Seven Barks," "Golden Seal," "Mother Rachel's Remedies," Aunt Lee's Syrup," and so on *ad nauseam*.

"All of these are launched with some very pretty and pious, but very improbable tale. If one were to believe the pamphlets, they will cure every disease that flesh is heir to; but all sensible people will concur in saying they perform the most cures when left strictly alone."

"It would seem that 'hard times' prevent ready collections in the quack medicine as well as in other kinds of business, and the delinquent agents of Huylar are receiving letters apparently from a law firm, the name of which does not appear in the directory. It deserves to be recorded as a most singular coincidence that the name of the first member of this firm happens to be the middle name of Huylar, and that of the other is the name of the madam's former husband. Singular, isn't it?"

[That the entire brood of patent medicine dealers deserve to be sent to State prison, we do sincerely believe. We ask our legislators to enact laws which will reach and punish these miserable swindlers, and put a stop to their poisoning and robbing. THE SCIENCE OF HEALTH will help.]

ought to be widely known.—Connecticut has a beneficent institution at Middletown, in the shape of an industrial school for girls. It takes young girls who would almost certainly lead a life of vice, if left to themselves, and reforms and educates them. While there they do all their own work, study three hours each day, help manufacture boxes, and are allowed suitable hours for recreation. They are under no more restriction than ordinary children, yet all are so well satisfied that they never attempt to escape. During the three years of its existence, eighty-five girls have been received in all, of whom twelve have been discharged, fitted for the duties of life. The total cost of the property was \$81,200, and it is now valued at \$200,000.

HOW TO EAT AND HOW TO DIGEST.

ON this all-important subject many theories have been propounded, whole volumes written; and yet as often has the very point been missed which ought never to have been forgotten, viz., that we must listen to the voice of nature. In our present enlightened age of science, and spelling made easy, most of us know that one of the first receiving houses for food is a double-mouthed bag, lightly slung in the space below the end of the breast-bone, and called a stomach; that this bag is rather a complex structure, furnished with blood-vessels and glands, which keep it in working order, and with a set of nerves which telegraph to the brain when the working is out of order. The middle and outer coats of this bag have some muscles handily interwoven, and these are more plentiful and stronger at the lower mouth of the bag, and act the part of doorkeeper, to prevent refractory morsels of food from bolting through the opening as raw recruits for the bowels. Then, for the blood-vessels—the very term implies the function; and the glands, what are they for? To secrete juices which shall help to digest the food; while the nerves are the telegraphic system which permeates the whole structure, and signals very distinctly to the brain when blood-vessel, gland, or muscle is failing to do its respective duty, or doing this duty inefficiently. If, then, we can bear in mind two great facts connected with the stomach, namely, that it has, first, a set of blood-vessels, and therefore can be inflamed; and, secondly, that it has nerves, and therefore can be pained,—we may perhaps feel more disposed to be cautious in our treatment of the same. Luckily for us, it is a good stout bag, and will stand plenty of wear and tear; but the proverbial camel has its back broken by the last straw, and the stoutest leather will occasionally give way, instead of stretching to circumstances; so, is it to be wondered at that the stomach sometimes strikes work?

My reader may ask, "How am I to tell whether this or that food agrees or disagrees with me?" I answer, "By your sensations." The nerves will telegraph the state of affairs. At first, uneasiness, and then pain, will tell you whether the food you have taken has agreed, or the reverse. And, indeed, it is a question of agreement: you must come to terms with your stomach; for if you do not, it will eject the unwelcome lodger, or pinch and gripe you into submission. So that, by listening in time to the warning given by pain and uneasiness, you may avoid the life-long trouble of indigestion that neither Cockle's pills nor Du Barry's "delicious food" will suffice to remove, whatever the one or the other may have effected for the general public, or for his holiness the Pope.*

I have spoken of the stomach individually as a separate organ, because it is perhaps more generally understood, if not more generally talked of; but we must not forget the part played by the bowels in the great drama of digestion. "Your stomach is out of order" is about the first sentence uttered by the medical man to his patient who shows him a furred tongue. Sir James Eyre has discoursed pleasantly and well on "The Stomach and its Difficulties." "I have a weak stomach," is the complaint of the dyspeptic. It is, as I said before, a good stout organ, and will bear much rough work; and it is well for us that Nature has so constructed it, for when so many bolt their food with little or no mastication, how necessary is it to have another set of teeth lower down, to reduce the precipitate morsels to that more harmless compound known as chyme. This is what the stomach does for us—it re-masticates our food, only the teeth are replaced by certain juices, the constituents of which are a Babylonian mystery to physiologists. The stomach thus does the first hard work that has been shirked or slurred over by the teeth, and, though

* Vide Testimonial 22,200,001.

supplied so richly with blood-vessels, is rarely attacked by inflammation; showing that, after all, we must look to the poor neglected bowels for most of our digestive troubles. The remarkable example of the keeper of the Eddystone lighthouse only proves this fact too plainly; for when that building was destroyed by fire in 1755, one of the men, on looking up at the burning mass, evidently with his mouth wide open (from astonishment, no doubt), swallowed seven ounces of the molten lead that fell from the top, and lived for ten days afterwards.

After such a case as this, what will not the stomach valiantly undertake? What has it not undertaken? Witness the fine collection of clasp knives in the Royal College of Surgeons' Museum in Lincoln's Inn Fields, swallowed by an adventurous tar, endowed with more courage than sense. This human ostrich was in the habit of swallowing knives and tenpenny nails, partly from bravado, and partly from love of gain, for his messmates paid him for making these gastric experiments. However, one unfortunate afternoon he dined too freely on Sheffield cutlery, and paid the penalty of death for this unusual debauch. These are instances of the great endurance of the human stomach, but they are by no means examples for us to turn fire-eaters or Indian jugglers, but rather to warn us against making any rash trial of the powers of the stomach; for there is one little peculiarity about this organ—that, after repeated attempts to stay the progress of a tough morsel, the valve which stops unlawful exports becomes weary, and passes the contraband wares through sheer fatigue. The consequence is, that the fragments which withstood the peptic machinery of the stomach not only defy, but wound the more delicate surface of the bowels. Pause, then, a moment, before raising a tough, though tempting morsel to the mouth, and think of the journey it will undertake, when it has once fairly shot the rapids of the gullet, and got into the seething current of food that whirls and eddies in the

great current lake below; and, as lighter craft glide safely over the Canadian rapids, so let your food morsel be light, and the transit will lose all danger.

Given, therefore, a stomach, strong yet sensitive, having a still voice-like conscience, and bowels delicate and impressionable—is it not fair that Nature makes us suffer through these organs, when we insult her so grossly by irritating them with bad food, ill-cooked, half-masticated, and wholly unfit for the purposes of nutrition? We deserve to suffer, and richly too. Sometimes we pour chemical compounds into the beautiful laboratory of Nature, and call them stimulants, but our chemistry is ill-applied. Stimulants they are in one sense, for they excite the coats of the stomach and bowels into a state of chronic inflammation. But this is not the whole sum of our folly. Barely satisfied with the mischief already worked by bad food and villainous drink, we crown all by vexing the unoffending liver, “more sinned against than sinning,” with blue pill, and the already wounded bowels with black draught. My gall rises as I write. Is it wonderful that we suffer? Is it surprising that we fall sick? How about that pain behind the shoulders, as if somebody had knocked you down with a paving-stone; and that pain in the stomach, as if the same assailant had, in Irish fashion, trampled on you when you were down? Did not that tough, leathery fragment, served as a steak, and chewed like rhinoceros hide, play some part in originating these pains? and did not the waiter, putting a decanter before you with an inky fluid in it, call it wine? Port wine I think he called it, and misquoted the year of its birth by a quarter of a century. And did you not pour this liquid fire over the inflammatory steak below, swallowed, but not digested? And then, did you not, rushing wildly away to your office, bury yourself in your books? and was it a wonder that the devil of indigestion, the demon of dyspepsia, piped to his own?

This picture is by no means overdrawn. Hundreds of city merchants lead this spasmodic life for a few years, and then

wonder that their stomachs are out of order. The wonder is, that their stomachs have kept *in* order so long. To those who say, "You have shown us how to get indigestion, but we want to cure it," I answer, "Do not talk about curing it, but rather ask how you shall prevent the same." This will be the safer and the more satisfactory plan; for though it is a very good thing to go to a doctor (for the doctor), it is a much better thing to keep away from him (for the patient); and if you can learn this happy art, enjoying good health at the same time, you have discovered the true elixir of life.

To begin with, take your meals regularly; do not dine at 2 P.M. to-day, and 7 P.M. to-morrow, and 4 P.M. the day after; but fix some stated hour. You must consider that you have a stomach to superintend as well as business, and that if you do not give the bowels a passing thought, the balance will be dead against you in the ledger of health. Do not forget the good old adage, "After dinner rest awhile." Let your meals be considered as important an item in the business of the day as watching the firmness of foreign markets, the looseness of grey shirtings, or the fluctuating fortunes of the Mexican republic. If you are to ignore the art of dining, you may as well repudiate at once the art of living and working, for rest assured that, unless you dine with judgment, you will not be able to calculate with foresight; and just for the lack of a little gastronomical knowledge, you may be a bankrupt. Is there not the old story quoted by everybody who has written on food and digestion, namely, that the first Napoleon lost the battle of Lepsic from eating a badly-cooked mutton chop? He died of cancer of the stomach. I do not say that this was brought on by his hastily-snatched, half-masticated cutlets and chickens; but if we allow that a man has a predisposition to malignant disease, is it unlikely that the most ill-treated organ should be attacked by the disease? Be careful as to the character of your food—your imports, let us call them; let them be nourishing, digestible, and judiciously

cooked; for if these three qualities are combined, you will include a fourth, namely, that they shall be palatable.

—E. B. S. in *Food Journal*.

THE AREOT MISSION IN INDIA.

WHEN the late Governor Seward was on the tour which occupied one of the latest years of his useful life, he paid everywhere particular attention to the fruits of missionary labor in heathen lands. In speaking of the Areot Mission, in British India, which was founded in 1855 by three of the brothers Scudder, sons of the eminent missionary who labored there forty years ago, he says:

"Medical science and skill are at a low ebb on the Asiatic continent, while they have attained a high development in the West. This superiority is shown and felt by even the lowest classes in the East. The Christian physician who comes to heal the body, naturally finds his patient in a proper temper for the healing of the soul.

"The municipal district in which the Aerot Mission is established, is one hundred and sixty miles square. The missionaries found within it only thirty-five native Christians, and these were without school or church. The missionaries (six in number) have now fifty native helpers, who teach day-schools in seventeen villages. They have their boarding-schools, two for boys, one for girls, all voluntary pupils. The converts intermarry. The children thus educated, though belonging to all the various castes in the country, are placed upon a footing of complete equality. At the largest of these schools, trades are taught. . . . But even a more beneficent institution than the schools, is a medical hospital. . . . This institution was founded in 1866, and during the past year 53,963 patients were gratuitously treated from its dispensary; 753 of these were in-door patients. . . . The amount of good accomplished by these self-denying missionaries, is already very great; but they are assured that it would be incalculably increased if they

could obtain the services of more medical women missionaries. These can gain access to the homes, and the mothers of families, which the man physician can not do. The few medical women now in the field have already succeeded in effecting more than their un-medical female, or even medical male colleagues, could have dared to hope.

"At once to heal the sick and to spread civilization and Christianity, is Christ's own work. We long to see more of our women engaged in it."

[The New York Medical College for Women offers instruction *gratis* to those who are preparing to go as missionaries.

For information on the subject, address Mrs. C. Fowler Wells, 389 Broadway.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

INSTINCTS ABOUT FOOD.

BY JULIA COLMAN.

The Law of Species with regard to Food.—Man uses Reason and the Lower Animals Instinct to guide them in the Selection of their Food.—"What are things made for, if not for us to eat?"—"One Man's Food another Man's Poison."—Hominy.—Hominy and Beans.—Samp or Corn Grits.—Curdled Eggs.—Cocoanut and Apple Pudding.—Cocoanut and Sago Pudding.—Apple-pie Pudding.—Orange-pudding Sauce.—Keeping Apples.—Canning Apples.

THE lower animals certainly have instincts to guide them in the selection of their food. And these instincts usually have the peculiar outward structure of the animal to assist them. The long muscular necks of the horse and the ox, as well as the forms of their muzzles, and of their teeth, enable them to crop the grass which their instincts lead them to crave. The squirrel's claws and agile form enable him to climb the trees in search of the nuts upon which he thrives. Indeed, the animal world abounds in these adaptations. The tastes also of the animals coincide with their needs. Each one selects and feeds upon its own appropriate food, rarely, if ever, in a state of nature, eating anything injurious.

The beauty and the wisdom of this plan are hardly appreciated without a little reflection. It provides for the nourishment of all, and distributes the animals to various parts of the earth, according to the location of their food; and, to a great extent, it prevents their

being robbed by other species. But, more beautiful still, it prevents the total devastation of areas of the earth's surface by the destruction of all its vegetation. What this devastation might be, if all animals ate all vegetables indiscriminately, we may infer from such instances as the locust and the army worm.

Not only are certain kinds of food particularly adapted to each species, but certain other kinds are noxious or poisonous, and what is wholesome to some species, is or may be noxious or poisonous to others. Hence the importance of instinct to guide the animals in the selection of their food.

Man also is subject to this law of specific adaptation. Some kinds of food are far better fitted to his wants than others, and some other kinds are poisonous to him. But he is unlike the animals in the fact that he has no instinct to guide him in the selection of his food. He uses his senses of taste and smell to enable him to decide whether or not he *likes* any article of food, but he cannot decide by these whether it be wholesome or noxious to him. Experience and reason must do this, and hence individuals of the human species try things. We see even little children putting everything into their mouths, to see whether it is good or not. This is not done by the young of other animals.

The observation of these facts will enable us to detect some prevalent and serious fallacies. One of these is that of

arguing that because any practice of eating and drinking, or any article of diet is in general use among human beings, therefore it is right and best for them. This is a common fallacy in works on dietetics, and it is of course a bar to all progress. If what we are now doing is best and right, that is the end of all argument and of all experiment. Johnston's "Chemistry of Common Life" abounds in such fallacious reasoning, and he has many servile and recent imitators. The above mentioned work is a curious and indiscriminating inquiry into the natural history of man, so to speak, with regard to his actual dietetic habits, rather than an intelligent attempt to help him to better habits.

A notable instance of this fallacious reasoning is given by the apologizers for the use of opium, tobacco, alcohol, and other poisons. They say that because the use of these substances is so nearly universal, they must meet some real want in man's nature, and that he is led to them by his instincts. But somehow they forget to observe that man, in thus following these so-called instincts, does not find his best good, and therefore the true idea and use of an instinct are lacking.

Men have experimented with eating all sorts of things—in the air and upon the earth, and in the waters under the earth; and what they like, either for its taste or for its effect upon their other sensations, they indulge in, limiting their indulgence only by satiety, or by their liability to be killed outright. That they do kill themselves in this way, by degrees, is evident to any one who observes the dietetic habits of mankind, and especially to those who observe the effects produced by the use of intoxicants.

Man was not made to eat the world, but to govern it. There are few questions more absurd than the oft repeated, "What was such and such a thing made for, if not to eat?" We have no right to take it for granted that everything was made for us to eat, in a world where there are so many other animals to be fed, and where there are so many things more or less noxious to us. No one has a right

to require me to tell what a thing is made for before he will allow me to say it was not made to eat. Very possibly I may not be able to tell what it is made for, but at the same time I may be able to show very good reasons why it could not have been intended for man to eat.

Another popular fallacy exposed by the observation of these facts, is that contained in the old adage, "What is one man's food is another man's poison." It is true, as we have seen, that what is the food of one *species* of animals, is or may be poison to another. But we never see this line drawn between individuals of the same species in their natural state. What suits one robin suits all robins. When we undertake to feed any animal, we ascertain what the species eats, and expect this individual to thrive upon that. We never think of consulting his individual tastes, and say, "What is one robin's food is another robin's poison." It is true that animals often acquire peculiar tastes when domesticated, or when in captivity, but this only shows a perversion of their instincts.

Still, people will quote the adage and appeal to facts, as they say. Mrs. A. cannot eat eggs, and Mrs. B. has a horror of cheese, and Miss C. cannot drink milk, and Father D. cannot eat apples, and so on through a long list of cases, which are to their minds so many proofs of the truth of the adage, because all these articles are food to other people.

It must be admitted that we have, as a race, induced unnatural habits of taste, and even of digestion, to some extent. It is also true that what is the whim, the fancy, the temporary indulgence of one individual, may become the inveterate tendency of one or more of his descendants. Idiosyncracies in this way become established and handed down through several generations, and it is probable that we all suffer in this way some deviation from normal tastes and habits. But they are, after all, only idiosyncracies, and their influence is quite limited. The very fact that they are spoken of as they are, proves this; for if

there were no rule, there would be no exceptions.

The range of man's diet is greater than that of most other animals; but there are, after all, certain classes and forms of food adapted to his wants as a species; and if there are individuals who cannot eat these, that argues some fault in the individual and not in the food. It does not prove the food poisonous, but it proves the man abnormal, and the most he ought to ask is that his whims may be tolerated until he can get himself into a more normal condition. He has no sort of right to so confound terms as to designate as a poison an article which reason and science approve as wholesome food, merely because his digestive apparatus is so impaired that he cannot assimilate it.

Suppose, however, that the idea in the adage were correct, what would become of our social eating? We should be looking for poison continually. It would avail little that others had partaken of the dish with impunity or with benefit. What was food to them might be poison to us. Again, how could we judge for others? In getting up an entertainment, how could we know what to prepare for others with whose needs we were not acquainted? How could dietaries be made out for prisons, hospitals, and asylums, and bills of fare for hotels and restaurants? How would farmers know what to raise, and marketmen know what to purchase for the public use? Unimagined confusion would ensue, and the wheels of commerce and industry would stand still to a great extent, if men were only a thousandth part as incongruous as the old saw would make them.

Are we making too much of the old saw? If so, where does its force stop, if it has any? If it were used understandingly, to express the confused condition into which we have brought ourselves by our bad habits, there would be some bitter sarcasm in it; but the fact is, it is never used consistently nor intelligently. It is merely a weapon for the caviler who has no other answer to make, when urged to consider the importance of wholesome

food. This very man will, upon occasion, argue most unreasonably that certain articles must be good because he has known individuals to eat them apparently without harm; and further still, because "all the animals" eat them. That shows how indifferently he has studied the habits of the animals, and how little he knows about the general laws of food. We abominate these old saws, originating in ignorance, and quoted by stupidity, whose only merit lies in the trickery of their wording, and in the fact that they have been quoted, for no one knows how long, by people too lazy to think for themselves.

We repeat, the human species is subject to the same law of uniformity as other species, with regard to food, though there may be a great number of those that so suffer from the transgression of these laws by themselves or their progenitors as to require special treatment.

That the substances of which we partake, have immense influence on the race and on individuals, no one can doubt who reads attentively the records of opium, alcohol, and tobacco. Whole nations have been swept away by such poisons, and others have been emasculated and ruined. In our own enlightened and Christian land, it is estimated that our bad habits in these respects are the cause of full nine-tenths of the crime, poverty, and disease from which we suffer. How much we suffer indirectly from diseases induced by the drinking habits of our ancestors, we are only just beginning to suspect. Recent scientific investigations in that direction have brought out some startling developments.

Amid these dark shades, however, we have strongly contrasting lights. If man is so sensitive to dietetic influences as seems evident from these facts, and if he is so free to use reason instead of instinct in the choice of his food, we may be hopeful as to the degree of improvement which can, nay must, come to him through the observance of correct dietetic habits. If doing away with the use of narcotics and stimulants alone will do away with nine-tenths of the poverty,

disease, and crime to which we are now subject, we can hardly estimate how high we may rise when we use only those kinds of food which are calculated to promote our best development, physically and intellectually, and when there has been time for results to accrue through several generations.

SEASONABLE RECIPES.

Hominy, or Samp.—The "samp" of the New York market is the hominy of the South and West. It is made of the Southern white corn, and is hulled (for the market) by machinery. In the South it is usually pounded by hand, the grain being moistened a few hours previously, so that the hulls loosen during the operation; or if it is ground, the hulls are washed out. Some of the best that we have in the market is simply hulled, and not broken. It would be very appropriate to call it "hulled corn," if people would understand what is meant by it. Unfortunately, the names of some of this class of goods are sadly confused. The hominy of the South and West is samp in New York, while the article called hominy in New York ("small hominy" in the South) is very much the same thing as the samp of New England. This in the United States Commissary Department is designated "corn grits." "Hulled corn" and "corn grits," then, would designate the articles appropriately. But, as a rule, we prefer to take words as we find them, and Webster's definition favors the use of "hominy" for the "coarser," and samp for the finer article. So, as we prefer to be cosmopolitan rather than metropolitan, we would fain accept his authority.

To cook this hulled corn, or hominy, prepare it by picking out all foreign matter; wash and put it into a pot with four times its measure of water; cook very gently and without stirring, for the stirring sets free the starch and makes it more liable to stick and burn. If cooked in steam or in a double boiler, it will require a little less water than the above proportions. Usually at the North, it is cooked in less water than at the South, and seasoned more. Cook three and a half or four hours, or until it will mash readily. Then, if desired, season with a little salt, and serve, instead of a vegetable, at dinner, or with milk at breakfast and supper.

Hominy and Beans.—When the hominy is half cooked, add one-fourth as many beans as there was dry hominy, and cook until both hominy and beans are tender. Salt, and serve warm with the usual dinner dishes.

Samp, or Corn Grits.—This also requires about four parts water to one of the samp. Have the water boiling in an iron or a porcelain-lined kettle, and pour in the samp and stir it occasionally until it sets, or is diffused throughout the wa-

ter. Then cover close and place where it will barely simmer for an hour. It can be used with a little less cooking, but it is better still with even more. It makes an excellent breakfast dish for this season of the year, and it may be served with milk, butter, sugar, or syrup, or eaten with meats, but by far the most delicious method of dressing it is with a soft-boiled or curdled egg.

Curdled Eggs.—Wash half a dozen eggs, put them into a saucepan, cover them with boiling water, and place them where they will keep hot but not boil. Let them stand about seven minutes, then skim out carefully, and serve at once. The whites should be tender and custard-like throughout, and the yolks stiff or fluid as preferred. It is the leathery white that makes common hard boiled eggs so difficult of digestion. Broken over warm hominy, milk toast, oatmeal mush, crushed wheat, boiled wheat, or warm potato, these curdled eggs make a delicious dressing.

Cocoanut and Apple Pudding.—Select large rich tart apples, such as are easily cooked, greenings, or Newtown pippins, if possible, pare and grate them on a coarse grater; then add one part dessicated cocoanut to four parts grated apple, or one part fresh-grated cocoanut to three parts apple, and add the requisite amount of sugar. The latter is readily determined by the taste, but no rule can well be given, since some apples require more sugar than others. If not sufficiently tart to be brisk, add a little lemon juice, say one lemon to each quart of apple, with enough additional sugar to sweeten. Bake half or three-quarters of an hour, or until the apple is well cooked. Serve warm or cold, better cold without dressing.

Cocoanut and Sago Pudding.—Pour three cups of boiling water on one cup of sago, and let it stand until it thickens, the time depending on the kind of sago used. Add to this four cups of grated or finely-chopped apples, two tablespoonfuls of lemon juice, one and a half cups of dessicated cocoanut, or two cups of that which is fresh and grated, and one and a half cups of sugar. Mix thoroughly, and if as much as two inches deep in the dish, bake one hour. Serve warm or cold without dressing.

Apple-pie Pudding.—In one quart of good wheat meal, mix one gill of washed currants, and pour in boiling water enough to make a dough as moist as can be conveniently handled. Roll out to three-fourths of an inch thick, and place on a pie dish. Then pare, core, and cut lengthwise into eight parts, good tart apples, and press the pieces into the crust, all "in apple-pie order," *i.e.*, in rows facing one way, like the German apple pies. Bake about three-fourths of an hour, and serve warm with sugar sprinkled over it, or with sour fruit sauce.

Orange-pudding Sauce.—Place in a bowl the juice of two medium-sized sour oranges; thick- en one pint of boiling water with two spoonfuls of

sifted wheat meal, add one and a half gills of sugar, boil five minutes, and pour hot into the orange juice. Mix evenly, and send it to the table with the "apple-ple pudding," American plum pudding (See SCIENCE OF HEALTH, April, 1873), or any other pudding with which it harmonizes.

Keeping Apples.—Keep them neither very dry nor very moist, and have as little hygrometric variation as possible. Above all, keep them cool. As the warm weather comes on, open the cellar windows on cool dry nights, and close them on warm days. Especially keep out the warm wind, even if you are obliged to keep the cellar closed for days together. In this way, greenings and other winter apples can be kept in very good condition until June.

Canning Apples.—At this season of the year, as well as earlier, apples often decay rapidly. Looking them over and using up those which have begun to decay, answers the purpose very imperfectly, partly because much is lost, and partly because an apple which has begun to decay has passed the period of its perfection. It is better to estimate the quantity of fruit required and take the probable surplus, or at least a portion of it, and put it up in the cans that have been emptied of other fruit from time to time during the winter. It takes but very little more time to can fruit than it does to cook it without canning, and when the fruit is canned, it is ready for the table. This fresh apple sauce will come in very acceptable in the warm spring weather, when the system craves acids and a brisk, racy variety of food.

HOUSE-WORK HINTS.

A HOUSEKEEPER sends us the following, which may be useful to some of our readers. If other housekeepers have hints or suggestions which may be new and useful, we shall be glad to hear from them:

Cracks in Stoves.—If common wood ashes and salt, made into a paste, with a little water, be applied, the aperture through which the fire or smoke penetrates, may be closed in a moment. Its effect is equally certain, whether the stove be hot or cold.

Never let case-knife blades or forks stand in hot water; it expands the steel, and thus cracks the handles. Ivory handles should, of course, never be allowed to lie in water.

To remove rust from flat-irons or polishing irons, use soap and sand.

Black-walnut picture-frames that have become dull and rusty looking, may be renewed, by first brushing thoroughly with a stiff brush, to remove dust, and then applying pure linseed-oil, with a suitable brush, or a piece of new bleached muslin will answer the purpose as well.

Grease on any kind of goods, may be removed by rubbing magnesia on the spots, and then covering with clean brown paper and applying a warm flat-iron. Repeat a few times, and the spot will be removed.

To clean silver or britannia, use whiting finely powdered, moistened with alcohol; then rub thoroughly with chamols-skin.

To cause nails to drive easily, and prevent rusting, dip in melted grease.

If a glass-stopper is set, warm the neck of the bottle in the flame of a lamp, and it can often be easily removed.

Eggs should be curdled by standing in hot water several minutes, not boiled hard in three minutes.

To renovate velvet, wet a clean sponge in warm soap-suds, squeeze it quite dry in a cloth, and wipe the velvet with it thoroughly; then pass the velvet over the edge of a hot flat-iron, the wrong side next the iron.

Chloroform will remove paint from a garment or elsewhere, when benzole or bi-sulphide of carbon fails.

THE ADULTERATION OF FOOD.—Comparatively few people are aware of the criminal dishonesty of some of the grocery keepers of the present time, and even a less number hold these dispensers of provender responsible for their bad health, impaired digestion, loss of vitality, and possible death.

In times past, grocery keepers were content to mix sand with sugar, and resort to other tricks quite as dishonest but nothing like as dangerous as those practiced daily by certain of them now, who may or may not know what poisons they are dealing out at wholesale and retail to sap the foundation of constitutions, destroy vitality, and plant the germs of disease broadcast throughout the land. Tea is adulterated largely with harmless leaves, but it is not unfrequently colored and weighted with Paris green and other deadly drugs. Ground coffee is seldom or never pure, but is generally harmless. Very few, if any, spices ground and put up in packages are pure. Some of them are deleterious, and others absolutely poisonous. Nearly all essence, flavoring extracts, and light oils, are more or less adulterated, and some of them are so poisonous as to kill a dog if administered in doses of a teaspoonful at a time.

But at the present time it is our purpose to deal more particularly with an article, that appears on nearly every breakfast table at this season of the year, known as golden syrup. There was once such an article as golden syrup, made from the drippings of sugar-houses, containing nothing hurtful to the system, but this so-called golden syrup of the present day is one of the worst articles of commerce ever sold for food. It does not possess a single atom of cane sugar. It is made by boiling in sulphuric acid starch, old linen and

cotton rags, sawdust of poplar and a few other kinds of soft wood, the refuse of gin-houses, and a few other substances which happen to be available because of their cheapness near the factory. The acid acts upon the carbonaceous properties of any of these different materials, and produces what is known to chemists as grape sugar, or the light-colored golden syrup of the breakfast-table. Sickening as the thought may be of eating any portion of the different materials mentioned, the danger to health lies in the fact that the sulphuric acid is generally found free to a greater or less extent in this syrup, and when taken into the stomach, it at once attacks the mucous membrane with tenfold greater effect than the worst adulterated liquor sold.

A few months since, the English Parliament passed a stringent law against the sale of certain specified species of adulterated food. The inspectors appointed under this act found over two million pounds of adulterated tea in wholesale houses, the sale of which was peremptorily forbidden. The grocers called a meeting of the mourners, and resolved to combine for the purpose of agitating a repeal of the law. The law not having been repealed as far as heard from, this adulterated tea was probably all shipped to England's best customer across the Atlantic, and is now possibly being retailed in this country under fancy brands as an excellent quality of the drug that cheers but does not inebriate.—*North-Western Review*.

ARRANGEMENT OF ROOMS.—Give your apartments expression—character. Rooms which mean nothing are cheerless, indeed. Study light and shade, and the combination and arrangement of drapery, furniture, and pictures. Allow nothing to look isolated, but let everything present an air of sociability. Observe a room immediately after a number have left it, and then, as you arrange the furniture, disturb as little as possible the relative position of chairs, ottomans, and sofas. Place two or three chairs in a conversational attitude in some cheery corner, an ottoman within easy distance of a sofa, a chair near your stand of stereoscopic views or engravings, and one where a good light will fall on the book which you may reach from the table near. Make little studies of effect which shall repay the more than the casual observer, and do not leave it possible for one to make the criticism which applies to so many homes, even of wealth and elegance—"fine carpets, handsome furniture, a few pictures, and elegant nothings—but how dreary!" The chilling atmosphere is felt at once, and we cannot divest ourselves of the idea that we must maintain a stiff and severe demeanor, to accord with the spirit of the place. Make your homes, then, so cheerful that, if we visit you, we may be joyous and unconstrained, and not feel ourselves out of harmony with our surroundings.—*Art Review*.

THAT house is no home which holds a

grumbling father, a scolding mother, a dissipated son, a lazy daughter, and a bad tempered child. It may be built of marble, surrounded by garden, park, and fountains; carpets of extravagant costliness may spread its floors; pictures of rarest merit may adorn its walls; its tables may abound with dainties the most luxurious; its every ordering may be complete, but it will not be a home.

HOW TO INSERT SCREWS IN PLASTER WALLS.—It is often desirable to insert screws in plastered walls, without attaching them to any woodwork, but when we turn them in, the plaster gives way and our effort is vain. And yet a screw may be inserted in plaster so as to hold light pictures, etc., very firmly. The best plan is to enlarge the hole to about twice the diameter of the screw, moisten the edges of the hole thoroughly with water, and fill it with plaster of Paris, such as is used for fastening the tops of lamps, etc., and bed the screw in the soft plaster. When the plaster has set, the screw will be held very strongly.

LARD AND RESIN.—A mixture of lard and resin is excellent for preserving all metal surfaces from rust. It may be applied and rubbed off nearly clean, and yet enough be left to shut out the oxygen of the air. It, therefore, answers for delicate instruments, and for steel household instruments not in constant use, as well as for plows and other large implements, since it is very cheap. One part resin to three parts fresh lard are the best proportions. It needs merely to be warmed and stirred together, and can then be kept any length of time. It is excellent for greasing boots to keep out water, for chapped hands, old sores, etc.

LEATHER may be firmly glued to metal by the following cement. One part of crushed nut-gall is digested six hours with eight parts of distilled water, and strained. Glue is macerated in its own weight of water for twenty-four hours, and then dissolved. The water infusion of galls is spread upon the leather, the glue solution upon the roughened surface of the warm metal; the moist leather is pressed upon it and then dried, when it adheres so that it cannot be removed without tearing.

A LOW LIGHT.—When, as in the case of sickness, a dull light is wished, or when matches are mislaid, put powdered salt on the candle till it reaches the black part of the wick. In this way a mild and steady light may be kept through the night by a small piece of candle.

ACID STAINS IN COLORED SILKS.—Brush the part with tincture of iodine; after a few seconds saturate it with hydrosulphite of soda and dry gradually. The color will be perfectly restored.

EMPLOYMENT is nature's physician, and essential to human happiness.



MONTHLY,
\$2.00 year.]

NEW YORK, MARCH, 1874.

[SINGLE No.
20 cents.

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

DIETETIC ALCOHOL AND HYGIENIC TOBACCO.

"The Popular Journal of Physical and Mental Science," published at Williamsport, Pa., edited by a brace of M.D.'s, and devoted to alcohol, tobacco, and drug medicines, does not admire the manner in which the SCIENCE OF HEALTH has ridiculed some of its silly notions. We hardly expected it would. We write to instruct hygienists, to reform society, revolutionize medicine, exterminate drug-opathy, annihilate alcohol, eradicate tobacco, and benefit humanity generally. If this programme does not please the *"Popular,"* etc., it has only to clear the track. After applying to us a few epithets, which are harmless, though not complimentary, it states its grievance in the following paragraphs:

"We may be all wrong, as the writer asserts, but until some valid argument is advanced to the contrary, we shall continue to believe that alcohol is a hydrocarbon, that when taken into the body, in small doses, it undergoes a chemical transformation, like other articles of this class, and thus gives rise to force. We believe that alimentary substances either contribute to the repair of tissue or supply force to the body, and that the best test of food action of any substance is its power to support life for a longer period than it could subsist if deprived of all such external help. It has been abundantly verified by the experience of every intelligent physician, that alcoholic liquors are capable of sustaining the vital powers under conditions of disease, in the absence of all other kinds of nourishment, for a considerable period of time.

"We do not think that it can be proven that 'indulgence in alcohol and tobacco is the bane of society, civilization, and Christianity.' That these two

things are 'emasculating the race; that to their use is owing most of the poverty, imbecility, pauperism, insanity, and crime which afflict us;' we deny that facts, if properly interpreted, would justify such conclusions.

"If such men, like this Pharisee, who are never weary of asserting that drink is the cause of three-fourths, five-sixths, nine-tenths, or any absurd proportion you please, of all the vice and crime in the country, and who, with the narrowness of view which characterizes them, can only see the last and most obvious link in the chain of causation, which leads down to crime, would take a little pains and study the history of the human nervous system and its weaknesses, they must find out, in spite of their prejudices, that the tendency to drunkenness is, in by far the greater number of cases, only one phase of a defective moral tone (very often inherited), which might just as easily have shown itself in a great many other forms of self-indulgence."

We admit the "hydro-carbon," the "transformation," and the "giving rise to force." But these facts no more prove alcohol to be food, than throwing a stone at a goose proves a woodchuck to be a whale. The same properties may be with equal propriety attributed to hogs' lard, benzine, turpentine, or the rattlesnake's virus. Arsenic, when swallowed, "gives rise" to force. But the force is an effort of the vital powers to expel it. It is unfortunately true that many physicians reason as absurdly as do the editors of the *"Popular,"* etc., and because alcohol occasions ("gives rise to") the exertion of vital force, they conclude it must be a "supporter of vitality." But the exercise of force in getting rid of a poison, is very different from the exercise of force

in transforming food into structure. The latter is a vitalizing and the former a de-vitalizing process.

There is no imagining what such medical editors as those who run the "*Popular*," etc., may or may not "think," especially if they imbibe liberally of their own force-give-rising-to hydro-carbonaceous victuals. But we beg leave modestly to suggest, that we have never yet heard of any cause, real or supposed, of the drunkenness which so extensively prevails, and its consequent vices, crimes, pauperism, and premature deaths, except the use of alcoholic liquors. When the "*Popular*," etc., proves itself ingenious enough to invent some other theory, we may perhaps find it convenient to explode it.

The last paragraph is worthy of being preserved in a musum of nonsensical curiosities. The tendency to drunkenness is not caused by drinking the drink which makes "drunk come." Oh, no! It is only "one phase of a defective moral tone." But we are curious to know if liquor-drinking on the part of parents does not conduce to the defective tone of the offspring? And again. Suppose there was no alcohol in existence? Would the defective tone then produce drunkards? Perhaps, however, the last sentence of this extraordinary jumble of gibberish was intended to elucidate something. But either we do not comprehend our authors, or they do not understand themselves—probably both. We are informed that the phase of a defective moral tone, if it did not show itself in getting drunk, might have shown itself in many other vices. The inference logically is, that it is better to be a drunkard and have a single indulgence, than to be a sober man and be addicted to a great many indulgences!

But if alcohol is a good food, and a good vitalizer, hydro-carbonizer, transformer, force-giving-rise, etc., why should it make those drunk who indulge in it?

No other food, that we are aware of, ever had this effect, no matter to what extent it was indulged in. We never heard of a man partaking of any other food or drink, and then murdering his wife or child by the "force" it "gave rise to." We pause for more light. Meanwhile, until we hear further from Drs. Helstry and Mays, we shall continue to believe that "indulgence in alcohol and tobacco is the bane of society, civilization and Christianity."

OF WHAT ARE WE MADE?

"FROM dust thou art, and unto dust thou shalt return." Our bodies are composed of many materials. It has been said that all the metals—iron, gold, silver, etc., may be found in the blood; that lime, chalk, clay, etc., also metalliferous bases, may be found in our bones; and that each individual man is an epitome of the universe. In him are rivers, lakes, oceans, mountains, forests, and something of everything existing. Man is at once a plant, an animal, a man and a spirit. If he lives true to his constitution, he comes into close relations with nature and with God. In our artificial civilization many live months, if not years, without setting foot on the ground! They live in dwellings warmed by artificial heat; lighted by artificial light. They breathe impure air; eat artificial food, cooked in the most artificial manner. In fact, when we consider the great mass of the "best society," there is but little about them which is not artificial. They have artificial teeth, artificial complexions, artificial calves, bustles, and breastworks! They are powdered, perfumed, crimped, cramped, and squeezed into such unnatural shapes that they may not be classified by the naturalist. They are nondescripts.

Now what is wanted for the healthful perpetuation of the race, and for the enjoyment of life, is, that we should live in harmony with the laws of our being. We

should keep close to nature ; should breathe the pure air of heaven ; should touch the earth—walk on it—work in it. Hence, the *necessity* of the garden. There is something life-giving, as well to the human as to the animal and the plant, in putting our feet and our hands on mother earth. Is there anything in the mud bath—the sand bath—or a bath in the earth ? Yea, verily, in all these.

There are Indians who dig a trench, from two to three feet deep, in the clean, soft, dry earth, and wrap a blanket around the ague-and-fever patient and bury him in the ground, with a tube through which to breathe, at his nose. There he is left until he becomes smoking hot—the steam rising from the ground like the smoke from a coal-pit—when he is taken out, washed off, and wrapped up in dry skins, and placed away in a wigwam to sleep. He comes out, it is said, free from the ague-and-fever, or from rheumatism, skin disease, or other infirmity—which the earth-bath and our modern wet-sheet pack is used to remove. When swine, long confined in dry pens, on dry plank floors, become constipated and “burning up” with fever and inflammation, are let out, they seek at once the swamp, a mud-puddle, in which to bathe and draw out the disease and the devouring fever-heat. This is nature.

Those who plow, spade, hoe, plant, weed, prune, trim, and work in gardens, are more likely to enjoy good health than those who do not. True, all may not work in gardens, or on farms, but all may walk on the ground. (Except prisoners and lunatics, who are inhumanly deprived of this blessing.) And all may breathe pure fresh air. These suggestions are made in the interest of those who wish to live hygienically ; and we count a good garden one of the means by which it may be attained. Good taste demands that we cultivate beautiful flow-

ers. Good husbandry demands, as a matter of economy, that all who can shall have a good garden. Good health also demands it. It is one of the civilizing, not to say Christianizing, institutions. Then hoorah for a garden, with peas, beans, lettuce, beets, cucumbers, cabbage, squashes, melons, etc. Strawberries, grapes, raspberries, cherries, plums, peaches, pears, apples, etc. Whatever else you have, or do not have, by all means have a good garden.

APPLES AND PHOSPHORUS.

IF the chemico-physiologists do not rest from their wonderful dietetical discoveries soon, the human race will all run to brains. The world is taught that phosphorus is brain-food ; hence, logically, if a person wants brains, he must eat phosphorus ; and hence, practically, if he would have phosphorus to eat, he must find the victuals which contains it. And of course, there is no way of ascertaining what edibles contain phosphorus without analyzing them. What those ancient myths of history, Moses, David, Solomon, Socrates, Plato, and Cato, to say nothing of Hippocrates, the father of medicine, did for brains, as analytical chemistry was unknown until these modern days, almost phosphorizes one's brains to attempt to imagine. Possibly indulgent nature or kind Providence scattered the mentalizing element promiscuously through such things as they subsisted on. But now-a-days, if we can believe medical journals and unmedical newspapers, we are left to our own unaided wits to find phosphorus for ourselves or go without brains. Some years ago it was announced that fish-diet was peculiarly brain-supporting, on account of its large admixture of the phosphoric ingredient, and hundreds and thousands of persons eat cod, halibut, salmon, herring, porgies, muskallonge, oysters, clams, lobsters, crabs, shrimps, sardines,

etc., etc., until their brains became so enormously preponderant that the cranium could not contain them. We wonder if the great brain of Agassiz did not run to ichthyology because of an ichthyologous dietary!

But fish soon found a rival in milk. It was recently discovered that the lacteal secretion has phosphorus in ample superabundance. Hence, many persons who imagined themselves weaned in early life, returned to "milk for babes," and not only milk, real or fictitious, but cream, butter, cheese, and everything else (if there be any such thing) that has the remotest relation to the function of the mammary glands, received a new commercial impetus. Not only this, but a factory has been started in New York for making butter out of beef-suet and other things.

But now phosphorus is found in the vegetable kingdom, even in apples, and our vegetarian friends, whose brains have been so long doubted, seem to have some chance, especially in fruitful seasons. The important information is conveyed in the following paragraph, which we extract from an agricultural paper :

APPLES.—It is stated that by a careful analysis, it has been found that apples contain a larger amount of phosphorus, or brain food, than any other fruit or vegetable, and on this account they are very important to sedentary men, who work their brain rather than their muscles. They also contain the acids which are needed every day, especially for sedentary men, the action of whose liver is sluggish, to eliminate effete matter, which, if retained in the system, produces inaction of the brain, and, indeed, of the whole system, causing jaundice, sleepiness, scurvy, and troublesome diseases of the skin.

"Comfort us with apples." We incline to the opinion that apple phosphorus is better than the fish or milk article. We have obtained our supply from apples, cabbages, potatoes, wheat, corn, rye, oats, peas, beans, and barley, etc., for many years, and we do not see that the work of our brains does not compare favorably with that performed by brains whose

phosphorus was obtained from fish and milk.

DRUGOPATHIC VICTUALS AND DRINK.

A CORRESPONDENT sends us the following paragraph, which has been going the rounds of newspaperdom for a year or more, and wants to know "what it all means?"

DRINKING HARD WATER.—Hard water has sometimes been thought unhealthy, and people have taken great pains to build cisterns in their houses, where the rain-water, purified, might be had for the table. But nature rarely makes mistakes, and spring water is almost uniformly hard. It is found, on extensive and careful inquiry, that hard water is more healthy than soft. The body needs some of the salts held in solution in hard water, and suffers if they are not supplied in some way. In England, the counties where hard water abounds are more healthy than those where soft water is used. The same fact appears in cities, where the mortality is less in the section supplied with hard water. Contrary to the general impression, soft water acts on lead pipes more powerfully than hard, and induces danger. Those who have built rain-water cisterns, thinking them more healthy than wells, will need to study the wiser methods of nature.

It means that some persons, applying the fundamental principle of drugging—that poisons are medicinal—to drink, have mistaken impurities for wholesome properties. If the body only needs "some of the salts in hard water," why are others put in by "the wiser methods of nature?" Because persons who drink hard water have better health than other persons have in other places, where soft water is drank, only proves the lesser of two evils. Some persons who have used both liquor and tobacco have lived to be old, while others who used neither have died young. But who would reason from these facts that liquor and tobacco prolonged the life of the former, while the want of it killed the latter? Yet this is precisely the argument, and only argument, that is adduced to prove that poisons and impurities conduce to health.

The real argument lies deeper. It is in

the relations of those saline and earthy matters held in solution by hard water to the living structures. If these inorganic matters are usable, they are useful; if not, they are injurious. And here a law of physiology, which shows that no inorganic matter of any kind can be used in any of the vital processes of any living organisms, except those of the vegetable kingdom, settles the problem before in favor of pure water as a beverage.

The fact that soft water acts on lead pipe, does not prove that hard water is useful to drink, although it may prove a protective coating to the pipes; but it does prove that uncoated lead pipes are not the hygienic material for conveying drinking water.

The same correspondent propounds the following: "What have you to say of beef put up with the following recipe: Four gallons of brine strong enough to bear up an egg; two ounces of saltpetre; two ounces of soda; four pints of molasses. Is it a good recipe? What effect has the saltpetre on the stomach and system generally? Does it make the person inclined to be bilious more so?"

Such food is very unwholesome. The saltpetre is a potent poison; and not only causes persons who are biliously inclined to become more so, but causes all persons who swallow it to die sooner than they otherwise would.

INHERITANCE.

"Visiting the iniquities of the fathers upon the children unto the third and fourth generations."

HAVING written to a lady friend, who resides in a beautiful and healthful locality, as to the cause of her long-continued illness, she says, in reply:

You say, "It is strange for you all to be so invalid in such a beautiful and healthy place." So it is; but you remember how when the fathers ate sour grapes, the children's teeth were set on edge; and I think father's excessive use of tobacco has shattered the nervous systems of his children. Smoking, as he used to do, *thirty* pipes of tobacco between tea and bed-time in our nursery, we were

almost as nicotine'd as himself. I think we shall always suffer from the nerve poison.

The lady is right. Children of tobacco-using parents, who survive and who are not dwarfed in body, or rendered imbecile in mind, are most *certainly injured* by the bad habit. Then think of physicians recommending their patients to use the vile stuff! But the curse is on the world. How to escape it—to free ourselves from it—is a serious question. Self-indulging men, who care nothing for consequences; and the poor weak imitators, who are scarcely responsible for their conduct, make up the great majority who fill the air with their poisonous fumes, and the street gutters with their nastiness. Health reformers must fight this evil, whether or not they make perceptible headway. Those who indulge in its use, not only injure themselves, but others also, including those who come after them. Those who oppose its use, and dissuade others therefrom, are in the right, and blessings must come of their earnest, zealous efforts.

A PROTEST.

WHILE, as an earnest protest against drug medication, we cordially indorse THE SCIENCE OF HEALTH, we cannot but smile sometimes at the dietary rules laid down by it.

How our eyes should overflow for those poor benighted millions of earth who have passed away, after having lived to the usual age of man, without having ever had shed abroad in their minds the knowledge now fortunately spread before us by the apostles of the bran bread theories.

THE SCIENCE OF HEALTH is a tip-top magazine, containing each month a vast amount of useful information; but when it undertakes to lay down arbitrary rules regarding what food is wholesome and what is unwholesome, it becomes empirical and leaves the true field of science; for there is nothing truer than that "what is one man's meat is another man's poison," and that the only infallible guide is the unperverted palate. — *Douglas County, Ill., Democrat.*

Comments.—It is true that the unperverted palate is a true guide; but as no one can present that guide, we are obliged to consult reason and science. It is

not that "what is one's man's meat is another's poison," for every fact in anatomy and physiology proves that every living organism, man's not excepted, has a determinate relation to the food which furnishes the best materials for his nutrition.

THE SCIENCE OF HEALTH IN CALIFORNIA.—Our readers west of the Rocky Mountains will be glad to hear of the return of Mrs. C. F. Young, M.D., who has lately been spending a few months in the East—home of her youth—among the friends of her childhood. She will now put on the armor of her profession and go forth to battle against error, intemperance, wrong living; and to teach the people how to live hygienically. Mrs. Dr. Young has formed a copartnership with Mrs. Dr. P. C. Taber, of Stockton, California, and will assist in building up a Hygienic Institution in that thriving city. Mrs. Young will canvass Calaveras, Amador, Nevada, Placer, and Yolo counties, on health topics, and may extend her visits to Shasta and Siskiyou counties, and possibly overland to Oregon. Invitations for her to lecture in any of the above-named counties, may be addressed to her at Stockton, California, or to this office. Mrs. Young will continue her contributions in our Pacific Department to the *SCIENCE OF HEALTH*; for which she will continue to receive subscriptions. We bespeak for her and for the "Science of Health" a kind reception throughout the Pacific States. Our objects and our interests—the dissemination of Health principles—are one and the same.

SUGAR—SALT—BUTTERMILK.—L. J. S.—"Which is most objectionable as an article of diet for persons of bilious temperaments—sugar or salt?"

Both are bad.

"Is buttermilk objectionable as food, or will it have the same effect upon bilious persons as is produced by sweet milk?"

It is enough for invalids to know that water is better than buttermilk.—*Science of Health.*

Comment.—It is bad for any one, even an editor

of a journal of health, to assume that he knows everything, and can instinctively answer all questions. The answers above given to a certain correspondent are in point. It is declared as an article of diet, salt and sugar "both are bad." Really! Doubtless, too much salt and sugar might be injurious; but without them, especially salt, it is well known that no person could live.

Moreover, water as a drink, a beverage, may be far better than buttermilk. But the question was, "Is buttermilk objectionable as food?" Who believes that for this purpose water is better? Who does not know, also, that for some buttermilk may be good food, and not so good for others?—*Dela-ware, Ohio, Signal.*

Additional Comments.—The *SCIENCE OF HEALTH* did just what it was requested to do. It answered the questions. If others are not satisfied because we did not make explanations or write a treatise, we are sorry, but cannot help it. The assertion that no person can live without salt, is untrue. We know hundreds who do live, and all the better, without it. As to the buttermilk, it is enough to say that it is not food at all, but drink; and, as a beverage, not so good as water.]

DR. CUTTER recommends the use of Indian meal, heated and placed in bags, as a substitute for hot water bottles, etc. He says that it weighs less, retains heat better, and does not chill when cold.

But who will care to keep a bottle of cold water or a bag of cold meal next to his person when he wants that which is hot. Besides, one can be changed as readily as the other, and water is cheapest. Some doctors seem impatient when simple water is proposed as a remedy.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

POP-CORN.—"Is parched corn, without butter or salt, healthy?"

Yes; when taken in moderation as a part of the regular meal.

SORE PIMPLES.—"For more than a year, I have been greatly annoyed with sore pimples on my face, whereupon I have consulted a physician, he advising me to use sarsaparilla, with

which I complied; notwithstanding, it proving useless. What shall I do?"

Drop drugs, and live Hygienically. Good food, pure water, pure air, proper exercise, etc., will purify the blood, and the sore pimples will disappear. Drugs cannot purify the blood. The wet-sheet pack will help to renovate the skin and purify the system. Try it.

SNOW-WATER.—"Is snow-water injurious to the health, when used for drinking or cooking purposes. I have heard that it was thought to cause goitre in countries where it is used."

Fresh snow contains more or less ammonia, and this is unwholesome. It is a common saying among farmers, that a good coat of snow on the ground is the poor man's fertilizer. Ammonia is good for grass, grain, and for other crops.

SELF-TREATMENT.—"Can prolapsus uteri be cured by a course of home treatment, and what work would you recommend as a guide?"

See "Uterine Diseases and Displacements," described at length in Special List, which will be sent you on receipt of address with stamp for postage.

"ARE acquired passions and vices hereditary, if abandoned several years before marriage?"

That depends on whether or not the tendencies are thoroughly overcome and subdued. "As you sow, so shall you reap."

Is Homeopathically-prepared cocoa injurious to the system, and why? Is it suitable to use butter as a stimulant for the liver? I have been recommended to do so by a Hygienic physician."

Our correspondent is mistaken. Hygienic physicians do not prescribe in that way. If any one pretending to be a Hygienic physician recommends "dosing," he is a humbug. Cocoa, if sufficiently "potentized" by dilution, is harmless, for the reason that it is inert.

FOOD.—E. M. M.—"Please tell me what kind of food is best to grow on, and what kind of food forms bone."

Grains, fruits, and vegetables. The food that is best for one part of the system is best for all.

CHEMISTRY AND VITALITY.—J. S. C.—"What does Dr. Trall mean by saying, 'There is no chemistry in living structure?'"

He means the changes which occur in living organisms are vital transformations, instead of chemical combinations.

BOOKS IN BOSTON, ETC.—R. S. S.—

"1. Have you an agency in Boston for the sale of your publications? 2. What is the price of Vols. I. and II. of THE SCIENCE OF HEALTH unbound? 3. Can you supply any single back numbers of 'The Phrenological Annual' from its beginning? 4. Do you approve of the use of Cream Yeast Baking Powder?"

1. Our publications may be obtained through Messrs. Lee & Shepard, in Boston. 2. Volumes I. and II. can be supplied at \$1 each, in numbers. 3. The numbers of the "Annual" are all out of print, except as contained in the combined form—price, \$2. 4. The best bread is made of wheat

meal and pure water. If yeast or risings are used, this is one of the best now in the market.

EPILEPSY.—"Is there any cure for epilepsy? If there is, how should a case be treated?"

A majority of cases can be cured. We cannot prescribe for a particular case without knowing its history, and the condition and habits of the patient.

"Is it true that diseases travel westward? And if so, why?"

Diseases never travel in any direction.

THE SEA-SHORE.—M. S.—"How early in the season is it best to go to the sea-shore for health?"

One may go at any season of the year. If he prefers a warm climate, he may go to the Gulf of Mexico, Louisiana, Texas, or South California, and find it pleasant in winter. If he wishes a more invigorating atmosphere, he may go to the Gulf of the St. Lawrence, or on the New England or Long Island shores.

ERUPTIONS ON THE FACE.—C. S.—"What can be the cause of a young lady's face breaking out with an eruption, she being of good and regular habits?"

A hundred causes occasion cutaneous eruption, but the cause in the particular case you mention we could not determine without knowing the patient's habits of life. What others consider good and regular, we might think bad and irregular.

THE SIAMESE TWINS.—J. S.—"Were these twins who lately died, and who were united by a vital principle, of one mind and soul, or were they two distinct entities? Could they have been severed without causing the death of both?"

The twins were two persons. They were not united by a "vital principle," but by a ligamentous adhesion occasioned by accidental pressure during utero gestation. Whether the connecting substance could have been safely divided, depends on the fact whether any very large blood vessels passed through it. We are of opinion that it could.

PURE WATER.—"1. In THE SCIENCE OF HEALTH—February, I notice a question, 'How to obtain pure water.' The answer is, 'By distilling it. Will you please inform me and many others, through THE SCIENCE OF HEALTH, of the best and cheapest mode of distilling hard water?' 2. Also, if you know of any way to conduct, or, rather, force, water from a cistern to a bath-room on second floor—something that is applicable for a private family."

There is no cheap machinery in market. You can get distilling apparatus at the manufactories, but it is better to filter rain-water. 2. There is no other method except that of the force-pump.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

A SUGGESTION. — HATS, HEADS, AND DISEASES.—"The writer is no cynic, nor does she altogether ignore what is called 'Fashion and Style.' And yet to see the whole family of human beings submit to a tyranny which rules down common-sense, comfort, grace, and beauty, is daily cause for wonder and vexation. Some writers in your columns have touched on various modes of dress, in various departments, but what about the hat? Since ladies have perched on the top of their heads a nondescript, something akin to the article worn by gentlemen, we have seen nothing which could be called sensible or graceful. But we are not writing of appearance, but suggest the inquiry, 'Has the fashion of wearing hats anything to do with affections of the throat, now become so common? Are ladies' ears impervious to cold winds and to damp? Are the glands of the throat proof against every change of weather and the keen frosts of winter? Whence, then, come so many cases of facial neuralgia, diphtheria, bronchitis, and kindred diseases?' Of all fashions, the hat is the most cruel, unless it is twin to low necks and bare arms; and even these are not found on the street. 'Well, everybody wears a hat; how can we wear a bonnet?'

"Suppose sensible ladies would form a Dress Society or League, and adopt only such fashions as are conducive to health and comfort, taking care to endow these with *taste*; would not thousands be benefited? Would not 'the good time coming' be hastened, by women taking on the armor of moral courage, and modestly braving the tyrant fashion? I wonder why one set of ladies cannot lead the fashion as well as others! Lastly, has the heat generated by the hat and chignon anything to do with the want of sensible brains?"

— "ETHEL."

THE WINE-DEALERS' Gazette, of San Francisco, copies the following notice, and adds the concluding note in brackets: "THE SCIENCE OF HEALTH for January is the first number of the fourth volume. This independent magazine is devoted to the best interests of the people; namely, their Health. It should be read by every family; no one can fail to be benefited thereby. It is not a medical journal, full of technical terms, but is plain and popular. Its teachings will be understood by all. The January number contains, 'How to Get Well, and How to Keep Well,' 'Do we Murder our Daughters?' 'Disease and its Treatment,' 'The Human Body,' illustrated, in parts; 'Hygienic vs. Drug Medication,' 'Remedy for Overstudy,' 'Heenan's Death,' 'The Goblins of Pathology,' 'Heritage of Woe,' 'Corsets Dis-

cussed,' 'How to Make Soups and Stews,' with other Household Receipts; 'Economy of Health,' 'Where to Winter,' 'Health of Women,' etc., with Answers to Correspondents."

[REMARKS BY THE EDITOR.—We give place for the above, because THE SCIENCE OF HEALTH we deem a real blessing to every hearthstone in the land. It saves doctor's bills; it saves health; it saves life. Its non-recognition of the efficacy of alcoholic stimulants, such as gin, brandy, wines, etc., in certain ailments, does not deter us from recommending it as the physician of the family.]

WORDS OF ENCOURAGEMENT.—Mrs. M. E. A., in renewing her subscription for the SCIENCE OF HEALTH, says: "It is a magazine that ought to be in the hands of every sensible wife and mother in the land. My husband says THE SCIENCE OF HEALTH and Dr. Trall's 'Hygienic Hand-Book,' have already saved us many times their pecuniary cost. I will try to get others to subscribe." J. H. W. says: "I have taken THE SCIENCE OF HEALTH for the year, and am very much pleased. Am positive that it was not in vain, my reading it the past year. I am certain it has helped me a great deal, and I cannot well do without it."

ENTIRELY SATISFIED.—J. S. H., writing from Oakland, Cal., says: "I have read your magazine, THE SCIENCE OF HEALTH, since its commencement, with great satisfaction and benefit to myself. I have just got over a severe attack of typhoid fever, having been treated on the principles advocated in your periodical, and I desire to express my entire satisfaction with the result. I should like to act as agent for your works in this city and county. This city contains about 20,000 inhabitants, and perhaps as much wealth as any city of its size in the world. I inclose stamps for your complete list of premiums mentioned in THE SCIENCE OF HEALTH; also, send me your 'confidential terms' to agents. I have already canvassed somewhat for your monthly, but have been at a great disadvantage for want of samples and circulars explaining the objects and terms of your journal."

HYGIENE IN RHODE ISLAND.—A lady correspondent says: "I have practiced the Hygienic treatment of diseases for twenty-seven years. In the first place, I had neuralgia in my arm and shoulder; it was very painful, and after trying many remedies in vain, was advised to try the virtue of water, which soon cured it. I found the daily morning ablutions to the whole body so invigorating and health-renewing, that I have con-

tinued it, winter and summer, ever since, with but few exceptions. And many times, in winter, had to break the ice, where it had frozen over during the night; but since I have turned the shady side of fifty, I do not use it as cold, though I do so as frequently. I have been told by Allopathic doctors, that cold water would do more for me than medicine. It has cured me of sciatic rheumatism, from which I suffered excruciating pain, when medicine was of no avail. But I am inclined to think that in advancing life the tepid bath is more advantageous, unless the person has a robust and vigorous constitution, which I have not. I like the wet-sheet pack also, and think it very useful in many cases, though I have not had occasion to try it lately.

"Perhaps cold water would not agree with every one as well as it does with me and my family. I practiced it with my children daily, from their earliest infancy until they were old enough to use it themselves."

"THE GOOD TIME COMING."—"We look for 'the good time coming,' when girls and ladies shall no longer box themselves in steel and whalebone armor. When traveling drug-stores, in the form of pale, sickly women, shall be no more. When health shall be the rule, and sickness the exception; when we shall all meet on one great and broad platform, the limits of which shall be commensurate with humanity itself.

"Verily, the world moves. Hundreds of men and women have gone forth into the field of reform within the last year, and hundreds more are coming. Ignorance, superstition, and educated prejudice, are fast giving way before the light of science and reason. Already our opposers are becoming ashamed of throwing the vulgar terms of 'strong-minded' and 'blue-stocking' at women who dare to lift their souls above scandal and gossip and the prevailing fashion; who dare to set at naught the world's tyrannies, and be true to the nobler instincts of the human heart.

"Truly, our cause is the cause of humanity, and we are bound to prevail. Our war is against error, and our weapons are strong, for truth and the pen are mightier than the sword.

"I appeal to every writer and speaker on reform. Work while the day lasts. Ho! ye dormant friends of reformation, rally to the great work; hasten 'the good time coming,' when the earth shall smile under a new, life-giving, and holier ray.

"AMANDA C. DEWING."

BAD FOR THE DOCTORS.—F. J. B., writing from Vermont, says: "I bought Dr. Trall's books twenty years ago; have had a large family, and treated them on Hygienic principles with the best results. Have not paid \$10 to a doctor for twenty years."

[And "that's what's the matter." If we would only sell rum, gin, brandy, bitters, tobacco, opium, cod-liver oil, and the rest—all good doctors' stuff—we should be much more popular with them;

and, no doubt, be patted on the shoulders and invited around behind the curtain—to "take a drink." But "we don't train in that company."]

VENTILATION.—"Editor of Science of Health,—As an evidence of progress on the part of the regular physicians, in the direction of Hygiene, I would mention the fact that Dr. Alpheus B. Crosby, late of the Michigan University, in lecturing on the subject of ventilation, at the rooms of the State Charity Association in this city, where several eminent physicians were present, said: 'There are three things necessary to the construction of a good hospital—pure air, absolute cleanliness, and nutritious and well-prepared food. These points being given, it would be found that the majority of hospital patients would recover without the aid of physicians.'

"We should hardly have expected this from the Old School, who have placed so much dependence on their drugs; but I suppose we should welcome any evidence of progression on their part. If this is the case with hospital patients, why should it not be the case in private practice? Why should not these three conditions be essential and enough for the recovery of any patient? We know that in our experience it is, and others are finding it out, thanks to the teachings of THE SCIENCE OF HYGIE."

FROM ILLINOIS.—Mrs. S. E. H. writes: "I have been trying to get a few subscribers for THE SCIENCE OF HEALTH, but have failed. The people about here have no desire to inform themselves on that subject, and it seems impossible to get them interested. I have come to the conclusion that they belong to that class spoken of in the Bible as 'given over to hardness of heart and blindness of mind, that they may believe a lie, and be —' Well, I don't know as their end will be that, but the chances are against them."

A WORD OF THANKS.—"I have just been reading the February number of the SCIENCE OF HEALTH, and cannot refrain from writing a word of thanks for such good instructions and advice, as is found in its pages. Every number seems better than its predecessor. I wish everybody would read and follow its teachings. May God bless you for publishing the truth, and aiming such powerful blows at error and sin. My father is P. M. here, in a small country town, and has received, within two weeks, more than two hundred patent medicine almanacs, of different kinds. May the time not be very far distant, when the public will not receive such humbugs."

GETTING A NAME UP BY LOSING PATIENTS.—A lady physician, Hygienic—writes:

"I am not getting rich, but I am paying my way. In January my receipts were six-fold larger than those of January a year ago. I have not yet had a death to record in this city, but that has been my good fortune, as much as anything else. Of course, some time I must begin to lose patients. My friends tell me I will never get my name up until I do. If this is so, I am content to remain obscure."

The Library.

THE PARENTS' GUIDE; Or, Human Development through Pre-Natal Influences and Inherited Tendencies. By Mrs. Hester Pendleton. Revised and enlarged. \$1.50. S. R. Wells, Publisher, 389 Broadway, New York.

The experienced author dedicates her Book "To the Mothers and Daughters of the Human Family, whom Providence has elected to continue the Race, and who desire to fulfill their high calling worthily." Written neither for Fame nor for Gain, it is an inspiration begotten of a high and holy love for the God-given principle of Fatherhood and Motherhood. Those who read **THE PARENTS' GUIDE**, and follow its precepts, will be all the better prepared to become parents of improved offspring, at once the pride and joy of every lover of his Race. **THE PAINS AND PERILS OF CHILD-BEARING** may be greatly mitigated, and this author shows how. If it be a *better*, rather than a more *numerous* progeny that the world wants, the *modus operandi* is herein pointed out. Of all the works of similar character, this is every way the best.

The following letter was recently sent to the author by a distinguished literary gentleman of this city. We publish the same, to show the high appreciation placed on the book by an impartial witness. Here is the letter:

Mrs. Hester Pendleton, President of the N. Y. Free Medical College for Women:

DEAR MADAME,—I had the honor of being the recipient of your valuable work on "Human Development," transmitted through Professor Gunn, for which I thank you kindly. I was also informed that the honor of your favorable notice was secured through the medium of an article I am publishing in his Journal, entitled, "Capacity and Incapacity," which must have sounded a note familiar to philanthropic hearts, as I see from the perusal of yours. It is strange how two minds approach each other from different stand-points until they blend in harmony. I only wanted this to give force, point, and proof, to what I am so imperfectly trying to get before the world. And it is a source of great pleasure to know that I have your sympathy and co-operation. While filling the Chair of Medical Jurisprudence in one of our colleges, my attention was more than usually directed to the subject of Insanity, and ever since I have been studying it every day, on the street, in the court-room, at church, and wherever I moved, with the convictions I am now giving the public constantly strengthened. Were anything at all wanting to confirm my opinions, I find it fully and beautifully shown in the valuable work before me, and to which I shall freely allude in my conclusion.

Permit me again to thank you, for myself and in behalf of mankind, for the pleasure and profit I have derived from its perusal, and the vast benefit it is calculated to bestow on humanity. It fills a void that none but a lady's hand could have filled so chastely and delicately; and though not written for fame or gain, will yield a rich harvest of gratitude. I regret that I have nothing to offer as an equivalent, except the devotion to duty and the elevation and amelioration of the human race, which, without the hope of *gain or fame*, your work and kindly sympathy have inspired. Accept, my dear madam, in return, my kind regards, together with my heartfelt invocations that you may long be spared to the world and usefulness. I have the honor to be yours, truly, and very affectionately,

H. P. HEEDMAN.

CHAMBERS' ENCYCLOPEDIA. Lippincott & Co., Publishers.

The one essential to every library is "Chambers' Encyclopedia," which is in itself a complete library—a Universal Dictionary of Knowledge. The possession

of the treasure is a fortune within itself; and should the home afford no other books, these great, rich volumes—ten in all—would be sufficient to instruct an entire family. This work is the result of this labor of an hundred years, and it would require more space than the limits of an article will allow, to mention all the varied features it possesses. The general character of the Encyclopedia is indicated by its title—a dictionary of names and facts. Its great attractions are the illustrative engravings and maps with which the work abounds.

The Encyclopedia is furnished to subscribers in numbers, and is handsomely bound in ten complete volumes, revised edition, and sold at rates that commend it to all who can estimate its value, or rightly appreciate the years and years of endless toil and labor required to compile this mass of information. The Lippincotts of Philadelphia are the publishers of this splendid work, and have spared no pains to make it acceptable to the entire public.

NINETEENTH ANNUAL REPORT OF THE BOARD OF EDUCATION for the year ending June, 1873. 8vo, pp. 307. Chicago.

A very interesting report, from which we may hereafter quote. Chicagoans are a *live* people, and do nothing by halves; and this Report exhibits that characteristic in a high degree. The schools of Chicago are receiving the best attention of many of the best minds in the West.

GODEY'S LADY'S BOOK. Edited by Mrs. Sarah J. Hale. Monthly. 8vo, pp. 102. Price, \$3 a year. The oldest magazine in America. Philadelphia: L. A. Godey.

This magazine has been so long before the public, and so widely disseminated, that its character is already understood, and all we need to say is that it is kept up to its usual standard, with no increase of price.

HEARTH AND HOME, published by the Orange Judd Company, of New York, has dropped its illustrations, and become a more popular story paper than hitherto. Its publishers aim to make it a high-toned Family Journal, combining instructive matter with light and entertaining reading. It is published at \$3 a year.

YALE LECTURES ON PREACHING—Second Series (Uniform with "First Series"). By Henry Ward Beecher. 12mo. Extra cloth, stamped cover, \$1.50.

WINNING SOULS. Sketches and Incidents During Forty Years of Pastoral Work. By Rev. S. B. Halliday. 12mo. Extra cloth, stamped cover, \$1.

BRAVE HEARTS. An American Novel. By Robertson Gray. Illustrated by F. O. C. Darley, H. L. Stephens, F. Beard, and C. Kendrick. 12mo. Extra cloth, stamped cover, \$1.75.

ST. NICHOLAS. Scribner's Illustrated Magazine for Girls and Boys. Conducted by Mary Mapes Dodge. \$3 a year.

"St. Nicholas" grows in favor, as it grows in excellence. It combines the good qualities of "Our Young Folks," which had become a household treasure in many families, previous to the advent of "St. Nicholas." There can be no doubt of its commercial and its literary success.

Our Puzzle Column.

POETS AND POETICAL SENTIMENTS.

FIFTY-SIX LETTERS.—13, 4, 35, 53, 12, 6, represents laughter as "holding both his sides."

10, 27, 42, 1, 51, 44, was the author of "I am monarch of all I survey."

14, 12, 34, 8, wrote, "Lo, the poor Indian!"

42, 18, 16, 39, 19, 23, 51, 44, describes memory as "The angel of the backward look."

50, 44, 29, 56, 52, 4, 24, 37, 45, 5, 21, the author of our favorite national anthem.

2, 20, 38, 9, 15, 35, 43, 33, was the friend to whom 2, 51, 28, 56, 41, 17, 43, 28, dedicated his beautiful elegiac poem.

49, 44, 2, 28, 7, 26, 25, 50, 54, 23, 30, 18, has immortalized the patriot martyr, Nathan Hale.

24, 44, 32, 11, 3, 46, 44, asks, "Where are the swallows fled?"

10, 55, 15, 35, 36, 56, 24, author of "When Music, heavenly maid, was young."

1, 26, 56, 31, 45, 6, 8, 21, sings,

"I fill this cup to one made up of loveliness alone!"

40, 12, 35, 22, 51, 17, author of a humorous poem containing, "Logic is logic."

The whole is a quotation from Longfellow.

ALMADE.

AN ACROSTIC.

To obtain my whole, my first must be regular.

My temper must be my second.

My third must be pure.

My fourth principally cold water.

My fifth, exercise.

My sixth carefully maintained, as it is essential to all animal and vegetable life.

My whole is a priceless boon.

M. D.

VEGETABLES.

One-sixth of a turnip and five-sixths of a tomato, will produce, properly arranged, a favorite esculent.

One-half of a bean, one-third of a pea, and one-sixth of a carrot, will give, when well mixed, a popular vegetable.

Three-sevenths of a lettuce and three-sevenths of parsley, yield a plant sometimes used in preparing salads.

MARJORAM.

CONCEALED INSECTS.

Carrie was preparing to go home, when the clock struck.

Is that a plow or mower?

It is either a sheep or calf lying down.

I can see the old mill, Ernest!

When I give the sign, attempt to reach the book.

Erasmus, quit ordering Henry.

JANE COLBURN.

ANSWERS TO PUZZLES IN JANUARY NO.

Double Acrostic.—Hamilton Fish and Leon Gambetta.
STREY BENNETT, FRANÇOIS M. BUCK, LIZZIE DENNY

Arithmetical.—734215.

CHAS. RICKOFF, N. N. NESSA, J. COLBURN, E. YOUNG,
W. J. MURCH, R. LARSON, S. BENNETT, W. H. PALMER,
S. E. WEAVER, C. A. RISSE, J. TUCKER, F. M. BUCK,
S. E. MITCHELL.

Buried Cities.—Toledo, Alton, Madison, Cairo, Muscatine, Manchester, Owego, Reading.

C. RICKOFF, N. N. NESSA, J. COLBURN, J. F. ZIMMERMAN, S. BENNETT, W. H. PALMER, S. E. WEAVER,
A. F. CONANT, C. A. RISSE, S. E. MITCHELL, A. MAUCKER, L. DENNY.

Cross Word.—Niagara Falls.

C. RICKOFF, N. N. NESSA, J. COLBURN, J. F. ZIMMERMAN, W. J. MURCH, R. LARSON, S. BENNETT,
ANON, W. H. PALMER, S. E. WEAVER, C. A. RISSE,
J. TUCKER, F. M. BUCK, E. A. ANDRUS, S. E. MITCHELL, L. DENNY.

Hygienic Reasoning.

"Doctor," said an old woman to a medical man, "kin you tell me how it is that some folks is born dumb?"

"Certainly, madam," replied the doctor; "it is owing to the fact that they came into the world without the power of speech."

"La, me!" remarked the old lady, "now just see what it is to have a physic education! I've axed my old man more nor a hundred times, that 'ere same thing, and all that I could ever get out of him was, 'Kase they is!'"

"SEE Naples and die," says an Italian proverb. "I saw it," says an American traveler, "and survived it; but it was a narrow squeak, for the stench of it nearly killed me."

FRESH DANBERRIES.—The cider apple is on the move, making diseased bodies, desolate hearts, wretched homes, and cucumber pickles.

THERE is a strike among the doctors in one of the Swiss Cantons. The people are exceedingly rejoiced, and at last accounts all of them were in perfect health.

IN a village Sabbath-school in a neighboring village a few Sabbaths ago, the superintendent was endeavoring to convey to the minds of the children the spiritual significance of the lamb, the sheep and the shepherd. "Now," said he, "you are the lambs, the teachers are the sheep; what am I?" After some pause, an urchin, having more knowledge than discretion, assuringly shouted, "I guess you must be the old buck!"

A NUMBER ONE FOOL.—"Do you like rum?" said an Englishman one day to a Chinaman.

"No, sir," replied the Chinaman.

"Why not?"

"Rum not proper, sir. Rum make Chinaman number one fool," replied the son of the Celestial kingdom.

THE Christian Union, talking of the uses and perils of false teeth, tells a story of an unfortunate minister whose teeth, while he was preaching the other day, dropped out in the middle of a severe attack on the looseness of Mr. Beecher's theology.

A PHOTOGRAPHER requests that his sign—"Taken from life"—should be his epitaph.

"WHY use paint?" asked a violinist of his daughter. "For the same reason that you use rosin, papa."

"How's that? 'Why to help me to draw my bean.'"

"MOTHER sent me," said a little girl to a neighbor, "to ask you to come and take tea with her this evening." "Did she say at what time, my dear?" "No," ma'am; she only said she would ask you, and then the thing would be off her mind—that was all she said."

"DOCTOR," said a lady to her physician, "don't you think the small bonnets that the ladies wear now-days, have a tendency to produce congestion of the brain?" "No, madam. Where you see one of those bonnets there is no brain to congest."

JOKE.—The best size for a man—exercise.

The bone of contention—the jaw-bone.

"What are you doing there, you rascal?" "Nawly taking cold, sir." "It looks to me as if you were stealing ice." "Well—yes—perhaps it will bear that construction."



NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

THE AUTOPSY OF AGASSIZ.

BY R. T. TRALL, M.D.

It is no disparagement to the honesty and intelligence of medical men that they blunder so frequently in the diagnosis of disease. The fault is a false medical system. With an erroneous theory of disease, it is impossible correctly to interpret its symptoms or accurately explain or locate morbid conditions or causes. It is a very prevalent mistake that the Hygienic system adopts or admits the theories of the drug medical schools in relation to the nature of disease or the "*modus operandi*" of medicines, merely substituting water, diet, etc., for bleeding, calomel, etc. The simple and important truth is, the Hygienic system differs from all the drug systems in theory as much as it does in practice. Drug medication is legitimate and proper, if the theory of disease, as recognized and taught by the medical profession, is true. And if this is true, the Hygienic system is a fraud and a sham; and the SCIENCE OF HEALTH has no moral right to advocate it. But if, on the other hand, the drug system has no basis in science, and if, too, its practice is productive of more disease and death than of health and life, then it becomes the right and the duty of the Hygienist to say so. And if he offers to prove it whenever and wherever opportunity presents, why should he be denounced as impertinent or meddlesome

by newspaper editors who know nothing of his arguments or premises, or by physicians who cannot or will not reply to them?

The article in the February SCIENCE OF HEALTH, explaining the nature of the ailment of which Agassiz died, and asserting that his physicians entirely mistook the nature of his malady, has been variously commented upon by the press; in some instances commendatorially, and in other instances quite otherwise. One paper takes it upon itself to say that the article was in "questionable taste;" that "those who live in glass houses should not throw stones;" and that "one specialty should not run a raid on another specialty," etc.

Whoever before heard that either the drug or the Hygienic system was a specialty? Neither profess this. Both disclaim it. Each professes to be the "true healing art;" and if either is judged at all, it should be judged by its own pretensions, not by what its opponents say of it. The issue between these systems is simple yes or no. If one is true the other is false, and *vice versa*.

We are told by certain semi-patronizing newspapers, that if the Hygienists will only tell what they know of their own good things, and let druggery alone, they will be tolerated, etc. But if the

drug system is true, we have no business to advocate an antagonistic system; and if it is wrong, it is our duty to show it.

Fortunately, so far as our adverse critics are concerned, the post-mortem examination confirms our diagnosis in every particular. Here it is:

CAMBRIDGE, Dec. 16, 1873.—Autopsy by Drs. R. H. Fitz and J. J. Putnam; present, Drs. J. B. S. Jackson, J. Wyman, C. Ellis, M. Wyman, S. G. Webber.

Frame large. Fat tissue abundant. Cranium, brachycephalic, falling off abruptly from the middle of the sagittal suture. Greatest antero-posterior diameter, 197 mill. met.; greatest lateral diameter, 163 mill. met.; these measurements made before the removal of the skin. Depth of frontal bone, measured externally at the median line, 5½ inches—135 m. m.; length of sagittal suture, 5 inches—128 m. m. The walls of the skull were thick and heavy; the dura mater exceedingly adherent to the bone and remarkably thick. The pia mater moderately transparent. Along the arachnoid veins were white lines indicating chronic thickening; the veins themselves rather more injected than usual. The cerebral sulci were deep and wide. On each side of the median line, near the anterior ascending convolution on the left, and the posterior ascending convolution on the right, was a depression which might have held a prunestone or a little more. The brain tissue around was diminished without evidence of disease. The arteries at the base of the brain showed evidence of extensive chronic disease of their lining membrane, with narrowing of the caliber of the carotids. The basilar artery was apparently a continuation of the left vertebral alone, the right vertebral being represented by an exceedingly small vessel which united the basilar with the inferior cerebellar, the latter being merely the prolongation of the exceedingly small right vertebral. The left vertebral was larger than usual, larger even than the basilar. In these unusually arranged arteries were very important changes. Commencing at an inch below the anterior edge of the Pons Varolii and extending downward, the walls of the left vertebral artery were stiff, in part calcified, and its linings loose. At half an inch from the point just mentioned, immediately over the left olivary body, was a reddish-yellow, opaque, friable plug (thrombus) completely obstructing the vessel; still lower was another more recent, but probably ante-mortem, plug. The first was one quarter of an inch long, the second four inches long. A third plug, an inch long, was above the first, and touching it. Opposite the middle of the pons there was athermatous degeneration of the basilar artery. The walls of the internal carotids were also in part calcified. The posterior part of the right cerebellar lobe (the side on which the vertebral artery was

exceedingly small) was softer than usual, the corresponding foliations swollen and indistinctly defined, indicating disease of this part, probably consequences of the changes in the arteries.

The weight of the entire brain was 53.4 avoirdupois ounces—1,495 grammes; allowing a diminution in the weight of the brain from the age of 35—40 years, at the rate of one ounce avoirdupois for each ten years elapsed, the greatest weight of the brain may be estimated at 56.5 avoirdupois ounces.

Weight of right anterior lobe (separated with the fissure of Rolando for a guide), 234 grammes; weight of left anterior lobe, 233 grammes. Heart large, muscular fiber firm and of good color. The attached portion of the aortic valves rigid; the mitral opening large. In the left ventricle at the lower third a firm organized clot of the size of a peach-stone attached to the wall at the anterior portion near the septum; around this clot a more recent one had formed, its center softened and granular. From this probably, some small portions had been carried by the blood to the arteries in the base of the brain, doing their part in obstructing them and causing the fatal changes above described. The lining membrane of the heart, where the clot was attached, was much thickened and the muscular layer at the same part very thin, near the apex not visible to the naked eye.

The lungs were adherent to the ribs on both sides of the chest, the evidence of old inflammations. The other organs were healthy.

In commenting on the autopsy, an editor of a leading daily paper says:

The autopsy of Prof. Agassiz, by Dr. Morrill Wyman, given in another column, indicates that the disease which caused the death of the great naturalist was of long standing. Obstructions which were probably originally formed in the region of the heart, were carried by the arteries into the brain, and there gradually disorganized, and at length checked the circulation. These morbid processes may have begun years ago, with an inflammation of the lining membrane of the lungs, which has left its traces. It is a melancholy satisfaction to know that no human skill could have saved his life, as such disease is far too deeply situated for surgical aid.

The careful reader can hardly fail to notice that it is the *effects* of disease, not its nature or causes, that the autopsy has revealed. That "obstructions" can be carried from one point to another, is an absurd expression. The writer means, if anything, the *causes* of obstruction; and these, as was stated in our preceding article, exist everywhere that the blood circulates, in persons who are gross or

plethoric. Men in the prime of life (as was Agassiz) are dying every day in the year because of these obstructing materials. We have read of a score of cases

since Agassiz died, all of whom might have lived many years in health and vigor, had they adopted the teachings of the SCIENCE OF HEALTH.

DISEASE AND ITS TREATMENT.—No. 14.

BY ROBERT WALTER, M.D.

THE MODUS OPERANDI OF DISEASE.

[Continued.]

IN order to a fair understanding of our subject, and such an one as will enable us clearly to indicate the appropriate answers to the questions propounded in our last, and explain the paradoxes and seeming inconsistencies therein developed, it will be necessary for us to examine more minutely than we have done the structural arrangement of the human organization, the characteristics of vitality, sources of vital action, etc., etc.

First, The human organism is made up of a conglomeration of corpuscles, each of which is itself a living thing. These are arranged into tissues and organs, all of which are endowed with certain properties or instincts that exactly fit them for the work nature designed them to accomplish.

Of the tissues, we have cellular, muscular, and nervous. The office of the cellular tissue is chiefly to form connections between the other tissues, and cushions and coverings for the various organs; hence its chief properties are toughness and elasticity. Muscular tissue, on the other hand, is the tissue that enables all the organs to move, and the organism to perform all its wondrous feats of strength and agility; hence it is endowed with the vital properties of contractility and irritability, the one enabling it to contract, often with remarkable force, and the other rendering it susceptible to impressions from the nervous system.

The nervous system is the highest grade of organization. It is supposed to preside over all the functions of life. It is composed of two kinds of tissue, the white fibrous and the gray cineritious,

the former being distributed to all parts of the system, constituting as it were telegraphic wires which convey intelligence to the centres of thought and action, and carry from these centres to the various organs the mandates of their *will*. The gray cineritious matter comprises these presiding centres, and are called by physiologists, *ganglia*, and are supposed to be generators of power.

Each of these systems, particularly the muscular and nervous, are again divided into two departments, the one department being subject to the intellect and will of the conscious, thinking man; and the other, subject only to the instinctive or organic system. They are termed respectively the voluntary muscular system and the involuntary muscular system; the cerebro-spinal nervous system and the organic nervous system.

The vital properties of any tissue or organ constitutes the *vitality* of that tissue or organ; and the combined properties of all the organs and tissues constitutes the vitality, vital force, living principle, etc., of the organism.

Now let the reader consider that these vital properties are *vital instincts*, and he will have the key to every action, normal or abnormal, healthy or diseased, that takes place in the human organism. Hunger is an instinct, so is the desire for sleep, for drink, clothing, etc., all depending upon the properties of the various organs. Muscular motion is one of the strongest instincts of life, especially where the vital property of muscular contractility is strongly indicated, as in a vigorous child; and hence the wickedness of forcing children to "be still." To think and speak, are instincts of life just as sure as we have brains and tongues;

and to think freely and communicate our thoughts, are the inherent rights of every man, just as sure as it is his right to eat and breathe. The lungs desire nothing so much as air; the liver, with instinctive certainty, separates the bile from the blood, kidneys, urine, etc., etc. Intellect will reason, the judgment will decide, conscience will have justice, and every other organ of mind or body will perform its functions healthfully and happily, unless it is debauched, perverted, repressed or starved by bad food or bad teachings.

All action, then, in the organic system is instinctive action, and consequently, when in health, is always as unerring as instinct is well known to be. But it always takes place with reference to things external to itself. The stomach acts with reference to food; the liver, skin, kidneys, with reference to impurities in the blood; the lungs with reference to air; eyes, ears, nose, etc., with reference to other objects; and, of course, the character of action will depend upon the character of those objects and their relations to the system. If these be good, the action will be normal; or the contrary, if they are bad, the action will be abnormal.

The first step toward any action, therefore, is *perception of the object*. We must see, or hear, or smell, or feel, or taste the thing before we can do anything with it. The next step is to convey the intelligence of our senses to the organs of will, the ganglia or brains. These must then decide what is to be done, and transmit their will to the acting organs, which immediately proceed to act in accordance with instructions.

What the action will be, therefore, depends upon all these contingencies. If the object is repulsive, such intelligence will be forwarded, defense will be inaugurated, and action of some kind will follow. If the senses be unreliable, false intelligence may be communicated; if the brain be diseased, wrong judgment will result; if the acting organs be injured, wrong action will surely follow. Hence we have disease, vice, and crime,

and all the other evils that afflict human beings.

The first step toward evil is in the first experiment. If it were not for improper relations to the things around us, the human machine would run with absolute precision. If we but lived in a world where nothing existed but ourselves, we would never be sick. There would be nothing for us to do, and so we never could do wrong. We would be in that blissful condition of sublime ignorance that we sometimes hear about. The dead level of an eternal stand-still would be ours, and of course the blissful indifference of a marble statue would be the height of our joys and sorrows. But things are otherwise ordered. We are in a world of ever-recurring change. We are thinking, feeling, experimenting, first trying this and then that, ever picking fruit from the Tree of Knowledge, ever learning by sad experiences, now slipping backward and then forward, we hope on the whole progressing; but whether progressing or retrograding, still "burning our fingers," and suffering the consequences. These consequences are usually reparation, and that reparation is disease.

Life is tenacious, human organisms are exceedingly tough, self-preservation is the first law of life; so that, though we blunder and suffer, we may yet live to blunder and suffer again until our forces are exhausted or our organs disorganized.

The whole human organization, as we have shown, is linked together by a system of nerve-telegraphy as it were. When the eye sees tempting fruit, the presiding ganglia of the stomach is made aware of it, and if it can dispose of it, the salivary glands secrete their saliva and our whole being moves in urgent demand therefor. This is healthful action. On the other hand, if poisonous medicines be introduced, intelligence of their presence is immediately sent to the centres of action, and we instinctively revolt against them, and make the attempt to expel them by vomiting or otherwise. This is disease.

Disease, we have already shown, is al-

ways a remedial effort, but not always a remedial process. The instincts of life are always towards life, but the actions of life are sometimes toward death. It is undoubtedly true that the great majority of diseases are really curative processes, and would result in complete recovery if let alone, but there are many curative efforts that are really destructive processes. For instance, if we snuff tobacco into our noses, intelligence is conveyed to the proper ganglia that an enemy is present, and immediately a powerful effort is put forth to expel him. If a purgative is in the bowels, the same result follows. Any one can perceive that these are curative or defensive processes. The poisons ought and can be ejected. But there is another class of actions having the same *modus operandi*, which are destructive in their tendencies. For instance, a person gets chilled, and the mucous membrane of his nose becomes congested, and he sneezes, and continues to sneeze in a vain attempt to cast out something, when there is nothing to cast out. There is a blind instinct working defensively, but destructively. Again, a person with dysentery, though there is nothing in the bowels, may strain for hours without any benefit, but rather with positive injury. The effort is remedial; but the action is unwise. The error is in the false report sent to the central ganglia. The sensation caused by the congestion, both in case of the nose and bowels, is so much like that caused by the presence of the snuff and purgative, that the ganglia is unable to distinguish between the two, and so acts alike in both cases. The intent is self-defensive, and is unerring, but the action is very wrong. Like many other well-meaning actions, it is productive of evil results. The same way with fever. The effort is one of purification, and it usually succeeds finally; but the action often defeats, for a time, its own object, by its violence or want of precision.

Just here is the place for the physician's skill to be displayed. It is his business to properly regulate and direct the action by uninjurious means, not to

stop it by poisoning the system till it cannot longer act, as is the usual custom. It is his appropriate occupation to moderate the violence of an action, ease the pain by balancing the circulation, nurse the patient and carefully direct the vital energies into the proper channels. The straining of the bowels, the sneezing, the fever, will be sure to stop before the patient dies, because the patient will not die as long as there is strength to strain.

As the strength begins to fail, the straining will begin to stop, and when this has once ceased, or partially ceased, it will not likely commence again, if there is nothing to start it into action. But usually a few injections of warm water will soothe and relieve the bowels long before the patient is even half dead. There is no danger whatever, in nine cases out of ten, of either fever or bowel complaints, if the patient is not drugged. Disease is not an enemy at war with the vital powers, and so it does not increase in violence as the patient grows weaker; but it is itself vital action, and hence grows less violent as the patient grows weak; so that no matter how wrong the action may be, it will seldom kill the man unless it be concentrated at one point so strongly as to cause death by obstruction or disorganization. This it sometimes does, as in case of poisoning and other violent diseases; but usually, if let alone, it cures the patient, as we will show hereafter.

LONGEVITY OF FARMERS.—In a late address before the Farmer's Club, of Princeton, Mass., Dr. Allen said that, according to the registration reports of deaths in Massachusetts, published now for about thirty years, and preserved with more accuracy and completeness than anywhere else in the country, the greatest longevity is found to obtain in agricultural life. In the ten different occupations as given in these reports, the cultivators of the earth stand, as a class, at the head, reaching, on an average, the age of nearly 65 years, while that of the next class, merchants, is only about 49 years; that of mechanics of all kinds, about 48 years, and that of shoemakers, about 44 years. Thus there is an advantage of about 15 years on the side of farmers as compared with merchants, and they reach an average age but little short of threescore and ten, allotted by the Psalmist to human life.

HOW TO GET WELL AND HOW TO KEEP WELL.—No. 4.

BY ERNEST WELLMAN, M.D.

PREDISPOSING CAUSES OF DISEASE—
UNHEALTHFUL AGENCIES.

Alcohol.—Chief among disease-producing substances is alcohol. It has fairly proved its superiority in trials unlimited in number, and varied in character. It has outstripped every competitor; not, perhaps, in its immediate destructiveness, but as a sly, treacherous, and deceitful foe, which saps the foundations of vitality, and wrecks health and vigor, both mental and physical, on the quicksands of stimulation. Like all other stimulants, it begins with fine promises. How oily the tongue and savory the speech of this treacherous enemy to life, who does not know? How many men still accept it as the panacea for all their woes! Without it they are wretched, homeless, friendless, shivering with cold, parched with heat, hungry, thirsty, naked; with it they are happy, the world is their home, everybody their friend; it warms them when cold, cools them when hot; it is food, drink, clothing. When the water is bad, they use it to make it good; when the air is miasmatic, they use it as an "antifogmatic;" and when at length they can no longer consistently take it as a beverage, they use it as a medicine. Thus, after having deceived the common people for ages, until the wails of the doomed startled mankind into a sense of its dangerous character, it is now ensconced in its last and greatest stronghold, the medical profession. But "at last it biteth like a serpent and stingeth like an adder," is the universal testimony.

Strange, that this substance, which it is claimed possesses such remarkable powers for good, should also be such a demon of evil! Strange, that though it possesses strengthening properties unequalled for body and brain, it should yet lay so many low in debility, imbecility, and finally death! Strange, passing strange, is it not, that while as a beverage

it is exhausting, debilitating, and dangerous, it is nevertheless, as a medicine, invigorating, strengthening, and safe? We visit the oracles and inquire the "reason why," but with united voice they exclaim, "We cannot tell. We only know that it is so. Experience has demonstrated the fact, and our experience we are bound to follow."

We are told that the experience of the common people is not reliable, that the feelings and judgment of the bar-room loafer are greatly perverted, and hence that alcohol, as a *beverage*, ought to be discarded; but that nevertheless the experience of an educated man is entirely safe. Let us suggest that that depends entirely upon the kind of education. No man is so confirmed in falsehood as he who has been educated into it; no experience is so unreliable as that of the man who has been educated to falsely interpret that experience. Instead of a man's judgment being safe because of his being educated into medical wisdom, it is all the more unsafe on this subject of alcohol because of that education. Nothing perverts the judgment like a false education; and that medical education is largely education into falsehood, is proved by the beautiful uncertainties of the system. It is forever changing its practices and modifying its theories. What was considered superlative wisdom yesterday, is denounced to-day as false and absurd; and what is now held to be absolutely curative, is being daily proved just as certainly destructive.

The value of alcohol as a medicine is proved in the same way as is the propriety of throwing babes into the Ganges to appease the gods; its power to strengthen invalids is nearly as certain as the transmigration of souls. Education has taught these, as it has a million other absurdities, and it is as reliable in one case as in the other. If there be any difference, the heathen certainly has the advantage;

for transmigration of souls might be argued with vastly greater show of reason than the strengthening properties of alcohol.

Dunglison, a standard medical author, tells us, in his *Materia Medica*, that in the science of medicine there are numerous facts that "justly merit the epithet of false facts." This of the strengthening properties of alcohol is surely one of them.

If alcohol is a strengthener, it is very remarkable that we should have so many weak and debilitated persons in the world. Are they so prejudiced that they will not try it? Has this great boon to debilitated humanity lain so long unused and unappreciated? Science declares that there is an "invariable connection" between cause and effect. (See Sir John Herschell's *Discourse on the Study of Natural Philosophy*. Sec. 145.)

Thus, if alcohol, or any other medicine ever gives strength, it will always do so; on the contrary, if it causes weakness once, it always tends in the same direction; unless indeed the fundamental principles of science as expounded by Bacon, Newton, Herschell, and others are false.

Herschell also declares, as a fundamental principle of science, that there is always "increased or diminished intensity of effect with increased or diminished intensity of cause." If, then, alcohol gives strength, the more we take of it the more strength we will have. Surely we may all be as strong as Hercules; for alcohol is plentiful enough. If one half gill of toddy causes the weak to be strong, surely one-half pint will cause him to be stronger, and one-half gallon give him infinite power. Where would human power and endurance end if the still-house could furnish it? On the other hand, where is the limit to human depravity, and how much of it is the legitimate offspring of bar-room and distillery, let our prisons and penitentiaries tell.

Medical men tell us that alcohol is a supporter of vitality. They used it as such during the last illness of Prince Albert, Consort of Queen Victoria, and lo!

he died of "gastric fever." It did not support his vitality. Again they used it in the case of his son, Prince of Wales, sick of a fever exactly similar; and he got worse, *worse*, until we were hourly expecting to hear of his death. But we had counted without our host. We were ignorant of the treatment that was being administered. Alcohol was the great supporter of vitality in this case, until friends and physicians had lost all hope, when a new doctor was called and he advised, not more brandy, but *no* brandy, and in its place gave milk. And lo! the patient recovered. They supported the vitality of Louis Napoleon for days on brandy; but ultimately he suddenly and mysteriously collapsed.

There are millions to-day whose vitality is being supported in the same way; first to enable them to attend to business, then to support them through an illness—some "mysterious dispensation of an all-wise Providence"—and finally to transport them to the realms of bliss or woe, as the case may be.

Medical men are mistaken. To the philosopher, as well as to the careless observer, the phenomena of nature are often very deceptive. Men cannot always trust their own senses. We wonder at the superstitions of our ancestors for insisting that this earth is the great centre around which revolves sun, moon, and stars; and yet these men not only saw it with their own eyes, but were confirmed in their observations by the declarations, as they read them, of Holy Writ. We smile at the simplicity of the attempts made to explain the supposed fact, and yet they were no more unsophisticated or puerile than those of medical men to explain the properties of alcohol or any other medicine. The wise among them do not attempt to explain. They acknowledge they cannot do it. "We know it is so," they say, "because our experience declares it; but how it is so, is too mysterious for us to comprehend." Which is precisely true. Ignorance always ends in mystery. The mysteries of medical science is the ignorance of medical men. The fogs of learning obscure

the truth, and millions are being lost on the sandbanks of ignorance and error because of the mists of medical education.

Galileo exploded the ancient mystery, and taught the learned philosophers and theologians that what they plainly saw they didn't see at all. Much less profound reasoning ought to be sufficient to teach the same lesson to medical men, though I have little faith that it will. For no ignorance is so hard to overcome as professional ignorance. No memory is so poor as that of the witness who finds it convenient to forget. None are so blind as those who won't see. None are so contented in error as those whom error pays. Medical science will never be thoroughly investigated until the people demand the "why and wherefore" of medical practice. As long as they are content to close their eyes in silent reverence for medical wisdom, to open their mouths in wondering awe at medical sagacity, and swallow it down, asking no questions for fear of hurting the doctor's feelings, so long will they continue to feed on promises, live in expectation, and die mysteriously "by the visitation of God."

The strength that alcohol gives is the strength of inflammation. It irritates the nerves, rasps them up to increased exhibition of power, inflames the membranes, and thus exhausts the vital resources. It corresponds precisely to the riches of the spendthrift, which ends in bankruptcy sooner or later, according to the volume of resources.

Alcohol not only causes undue expenditure of strength, but it also prevents its evolvment; it not only squanders a man's vital resources, but it alienates those that would otherwise naturally revert to him. It interferes directly with the nutritive processes, inasmuch as it impedes disintegration, combination, and transmutation. Through these processes alone is vital power replenished. All vital tissue becomes devitalized—worn out by use, and in the healthy organism is immediately taken up by the lymphatic vessels and carried into the general circu-

lation, to be cast out by the organs of excretion. Alcohol, as an antiseptic, impedes this process, so that the old matters, worn out and poisonous, are retained to the exclusion of new and healthful tissue. The victim then becomes bloated, his appetite fails, and he daily grows weaker until imbecility or death closes the scene. Every one knows that this is the case when alcohol is largely used; they ought to know, if they comprehended the principles of science, that the tendency is always in the same direction, no matter how sparingly it is employed.

No man, therefore, can be justified in the use of alcohol in even the smallest quantity. It has proved itself an unmixed evil, and we should "shun even the very appearance of evil." Alcohol is a poison, and no man can be justified in poisoning himself. It is destructive to the life powers, and human life is sacred.

Let no man, then, imagine that he can retain health in the highest degree and yet use alcoholic liquors. He may continue moderately well for years, notwithstanding their use; he may actually pride himself that they preserve him in health and vigor; he may feel, see, and know their great benefits, as millions have before him, and yet be mistaken. And if he cannot maintain health and yet use strong drink, he certainly cannot regain it by its use, a statement that seems self-evident.

The cure for drunkenness will be discussed in its proper place. We will simply say here that it can be completely cured by hygienic methods.

A NOVEL BATH.—One of the therapeutic novelties in London, recently introduced from the Continent, consists in the erection of establishments for administering hot sand baths as a remedy for rheumatism, recent cases of nervous disorder, affections of the kidneys, and all cases where heat is wanted as the chief therapeutic agent. The advantages of this treatment are, that it does not suppress perspiration like the hot-water bath, but rather increases it, and does not interfere with the respiration, like the steam bath or Turkish bath. The body can endure its influence for a much longer time, and a much higher temperature can be applied.—*Exchange.*

ONE OR MORE IN THE SAME BED.

AMONG the nobility in Oriental countries, no more than one sleep in the same bed. Even in Europe each member of the different royal families has a separate bed and separate sleeping-room. It would be considered vulgar by them for grown-up persons to sleep two in a bed, or two in the same room. While among the poor it is not unusual for a family of several to occupy one room without partitions. Several of our North American Indians occupy the same wigwam; so among the colored population in the tropics, one cabin or hut serves for any number who can crowd in. It is the same among the Esquimaux, who live in snow huts in the Arctic regions. Chinamen of the poorer class may be found lying on the floor as thick as herrings—men, women, and children mixed indiscriminately. Even in the Highlands of Scotland, where the Boothy system prevails, it is not unusual for several adults to occupy the same room, and indeed the same bed! Of late, much objection among the more refined classes in Scotland is made to this Boothy system, and strong efforts are being made to break it up, but it still exists to a considerable extent; and, as a consequence, there are many domestic irregularities, which are grievous to the more chaste and sensitive.

Here are some interesting remarks on the subject, given in the columns of a Health Journal published in Georgia. The writer inquires :

SHOULD TWO OR MORE PERSONS SLEEP TOGETHER?—The practice of crowding a number of people together in a close, ill-ventilated sleeping-room, is certainly objectionable. Even one person should never sleep in such a room; and it is worse still when from two to four occupy the same bed in a close room, even though they are all healthy. But should some of the parties be diseased, or should some be old and feeble, and the others young and vigorous, the young and healthy will be very likely to suffer from the abstraction of that vitality which will be imparted to the less vigorous; and they will be very liable to contract positive disease from the contact of their unsound sleeping companions.

The plain teaching of hygiene, then, is that very old, or feeble, or diseased people should not sleep

in the same bed with the young, vigorous, and healthy. For, while the old and diseased may be benefited by the contact, the young and healthy are greatly exposed to injury. And even should both parties be near the same age, and healthy, the sleeping-room should be clean and well ventilated, to guard against disease from the emanations which are given off by all parties, however healthy, and which are prolific sources of disease when concentrated in a close room, and absorbed by the skin, or inhaled over and over again by the lungs.

But, while these facts are universally admitted by physiologists and hygienists, and while they apply of course to husband and wife, some have gone so far as to condemn the time-honored custom of having a common or double bed, even in wedlock. And the objection is founded not so much on hygienic as on moral considerations.

A highly respected friend of ours, and a well-known medical writer, uses the following strong language on this point :

"The practice of man and wife sleeping in the same bed together, is uncivilized and indecent, and, in thousands and thousands of cases, engenders vulgar contempt, blunts that modesty, delicacy and refinement of feeling, one to another, which should ever exist as nature has intended. We believe this custom is directly the cause of more than half the numberless divorce cases occurring everywhere. Between man and wife the utmost modesty and delicacy of feeling and sentiment should ever be cultivated, as it constitutes the strong link to their loves. We are creatures of circumstances, and many times we are unavoidably influenced in our feelings when least it was intended. This prevailing custom, and in which we are sustained by physiologists, hygienists, and moralists, is uncivilized, unchristianized, indecent, immoral, and unhealthy."

This is certainly about as strong as King James's "Counterblast to Tobacco;" and the style is quite an improvement on that famous document. Still the "Counterblast" says nothing worse of tobacco than does our friend of a custom which is very prevalent, even in civilized and Christian countries, and which is certainly very popular.

King James, in summing up his argument, says that the custom of using tobacco is a sin against God, "loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the blacke, stinking fume thereof, nearest resembling the horrible Stigian smoake of the pit that is bottomless."

Now, as a pronouncement divorcing husband and wife from a common bed is a matter of deep interest to a very large and respectable class of people who desire to do right, it becomes us to examine carefully the grounds on which the decree is made. Omitting the hygienic aspects of the

question, the counts of the indictment are that "the practice of man and wife sleeping together in the same bed is uncivilized and indecent." And in the final summing up, the additional charge is made, that it is "unchristianized and immoral."

Uncivilized means uninstructed in the arts; unimproved; unpolished; uncultivated. But we cannot see how either of these definitions will sustain the writer in pronouncing the custom of husband and wife sleeping together, uncivilized. As to the art part, it is wholly inapplicable; for the practice is so habitual, so long established, and so easy, that the whole race of mankind has fallen into it without that preparatory training necessary for the acquisition of an art.

As to the other definition—"unimproved"—it is equally inapplicable, unless it can be proved that the state of society is to be estimated by the manner in which married people sleep; and that separate beds are an improvement on the custom of sleeping together, which prevails in every state of society.

The same is true of the other meaning—"unpolished"—and as the word polish has reference more to the manners and address than anything else, and as neither of these is involved in sleeping together, of course the practice cannot be called unpolished.

The same remarks are applicable, with slight modification, to the other term—"uncultivated." But as this may be applied to the feelings and emotions of the heart, as well as to the external manners and address, we will refer to it again, after disposing of the other charges.

The second charge is that the practice is "unchristianized." Now, there is certainly no positive prohibition as to husband and wife sleeping together in the Bible, except in some exceptional and well-defined cases in the Mosaic law; and these exceptional prohibitions plainly indicate that it was the practice for husband and wife to occupy the same bed at other times.

The same is true of the New Testament, with the exception that there is no prohibition of any kind; while the positive injunctions with regard to the relation of husband and wife lead fairly to the inference that the practice is admissible.

The third and last count in the bill of indictment which we will notice, is that of "indecency and immorality." As to decency, our ideas of this are very much a matter of taste and education. And to a pure taste and a properly instructed mind, we can see nothing more objectionable in sleeping together than in eating or walking together. "To the pure all things are pure." Where the taste is unperturbed, where the mind and heart are properly cultivated, where the marriage relation is viewed in its true light, as a most sacred, elevating, and refining union of man and woman, for the promotion of the virtue and the happiness of the creature, and the accomplishment of the great ends of an all-wise Creator, there is nothing

whatever in this relation, or in anything connected with it, that "engenders vulgar contempt," or "blunts that modesty, delicacy, and refinement of feeling, one to another, which should ever exist as nature has intended" between husband and wife.

This we consider a sufficient answer to the second specification—"immorality." We cannot possibly see how immorality could result from the lawful exercise of a privilege which is sacred in itself, and which is one of the strongest safeguards to good morals.

Having now seen that the charges of the writer are not sustained by the evidence, let us inquire whether there is anything to recommend the prevailing custom which he so roundly condemns.

It will be remembered that none of the meanings of uncivilized is uncultivated.

Now, in our view of things, the separation of husband and wife for nearly half their existence, would be far more uncivilized, or in other words, would leave the tenderest affections of their nature far more uncultivated than to place them together under circumstances more intimate and more endearing than any other association in life.

We cannot imagine anything better calculated to keep the fires of love burning brightly in the hearts of a pure-minded couple united in the sacred bonds of matrimony than the proximity of body and the communion of spirit which are to be enjoyed only by such association. There is in this a magnetic power which is closely akin to love itself, and which certainly has much to do with keeping alive the holy flame, and in uniting in bonds indissoluble, two hearts, whose affection will increase day by day, by such pure and intimate association as we advocate. And this natural and physiological view is fully substantiated by the precepts of the Bible, such as—"Husbands, love your wives;" "Thy twain shall be one flesh;" "For this cause shall a man forsake all others and cleave unto his wife," etc.

Therefore we conclude that healthy married people near the same age should sleep together in a well-aired room, because it will not endanger their health or their morals, but, on the contrary, will intensify their love by that bodily proximity and that spiritual communion which nothing but this kind of association can engender and perpetuate.

Nothing is said above as to an excess of a good thing. Suppose high living cause too much "flame," and so produce inordinate affection, on the part of one or both. What then? Again, suppose the system of one be filled with bad humors—scrofula, the taint of insanity, consumption, diseased lungs, a bad breath? Or, suppose the body of one has been pickled in beer or bourbon? Or, still worse, completely narcotized by stinking

tobacco—so much so that the fumes of the body fill the room with the vile odors? Can this be healthful or hygienic for the partner of one's bosom to breathe all night and all day? Get out! Such contact, such an atmosphere, makes invalids and life-long martyrs of many women. Children who are born in tobacco-smoke are more likely to die than to live. And if they live they become nervous, excitable, impulsive creatures, lacking the

power of self-control. Such become inmates of prisons, asylums, poor-houses, or else they die whiskey and tobacco sots.

These *are* valid reasons why it would be better for *many* to sleep alone. We shall not now prescribe rules for our readers, but leave it for each to judge for himself or herself. No living person can desire to be so closely allied to dead and alive consumption, or to a comparative corpse.

HOW TO KILL BABIES QUICKLY.

BY ELIZABETH DUDLEY.

BABIES are universally acknowledged to be perverse and unreasonable creatures. They rarely make their advent in families where they are eagerly desired and welcomed, but generally choose to inflict themselves upon those who don't want them. This is so unfair, especially in these hard times, when everybody naturally feels that "self-preservation is the first law of nature," that we need not be surprised to learn that the babies are generally severely punished for their audacity.

Generous parents, to be sure, often resign themselves at first to the imposition practiced and decide that they will make the best of it, and do all they can for the baby, but they presently regret this rash resolve and are forced to succumb and study some means of self-protection.

As yet, no better plan has been devised than to get rid at once of these selfish little parasites by killing them. But some people, especially fathers, are so weak-minded as to object to this, and there is a show of method in their madness, too, for they argue that these very babies, if allowed to live, would, by and by, grow into men and women, and carry on the management of terrestrial affairs when we are dead. Need we concern ourselves about that? The world was evidently made for our use and pleasure, and we cannot believe there will be much worth living for when we are gone; at any rate, our own comfort and happiness

is as much as we have capacity to provide for; so let the babies beware, and come among us at their peril!

For how not to provide for them, is a subject that we have carefully studied for many generations, and have at last reached great perfection in. Absolute and universal perfection in this art has not yet been attained because of the stupidity of some people who still cling to what they call their "instincts," and insist that the laws of nature were meant to be obeyed.

Instinct and nature indeed! As if we had not educated ourselves out of all that folly long since—as if reason and culture were not the only and sufficient guides for modern gentlemen and ladies! Why, they will be telling us next that a lady may marry a gentleman for some other reason than because he can give her a gorgeous mansion on "the Avenue" with a carriage and horses and a magnificent wardrobe!

We leave all such nonsensical ideas to common folks—to those who call themselves men and women. You will hear these people talk about the helpless, innocent creature which yesterday was not and to-day is, and declare that but for themselves this new human being would not have been summoned into the world, to endure sorrow and pain perhaps an hundredfold greater than themselves have known. They will declare that they are never able to look upon the cherub

child without reflecting that here, perhaps, slumbers the soul of a Plato, a St. Paul, a Florence Nightingale, and that they must be exceedingly careful to sustain the little one and train it aright.

You might believe this for a few minutes when you look at a downy, pink baby lying asleep; but when he wakes, screaming with colic, you find that there is no poetry nor sublimity about him! And if you live in the house with a baby and learn his perverse and demoniac habits, you soon set him down for a nuisance. Some of them will scream from midnight to daybreak, so that no one in the neighborhood can sleep; some of them require constant care and attention to insure any peace in the house; others are sick nearly all the time, and oblige their wretched parents to spend an incredible amount of money on nurses and doctors, and the healthy ones are forever in mischief, and keep you trotting about after them all day long from the time they can creep.

So we are obliged in self-defence to study the best and quickest modes of killing them off as fast as possible, and in various ways we succeed pretty well, though we have many difficulties to encounter. Poor folks and disreputable women send their infants to foundling hospitals, where, in spite of the absurd attempts to keep them alive awhile, fully one half die off before they are a year old. But respectable mothers cannot do this, they are obliged to kill their babies at home, and give them a funeral; otherwise Mrs. Grundy would be quite shocked!

In some families, as soon as the child is washed and dressed, they give it molasses and water. Its new and delicate stomach has been constructed to hold a dozen or twenty drops and to digest its mother's milk, so when they force down its throat three or four spoonfuls of molasses and water, it soon begins to suffer from indigestion and colic. Some paregoric is given to relieve the pain, which it does by paralyzing the sensory ganglia at the base of the brain, and through reflex action, the motor nerves; the infant now

lies comatose and quiet, so other people can sleep in peace. The next day it is fretful and restless (as adults are after a debauch), and suffers from constipation; a dose of oil is given, which acts as an emetic and purgative; it causes griping also, and more paregoric must be administered.

Between times the baby attempts to get some food, but it cannot be allowed its natural nourishment—oh no! For the object is to kill the troublesome little creature, so they bring it up by the bottle; and instead of putting one-third warm water and two-thirds of creamy milk from a healthy cow in the bottle, they make an indigestible starch of some sort and inflame the delicate stomach with it. The baby feeds and starves and screams, more paregoric is given, and then more oil. Soon paregoric loses its effect, and, instead of administering once for all a good dose of strychnine or arsenic, the equally deadly but slower poison of soothing syrup is doled out. Oil is now useless to affect the already chronic constipation, and a doctor is called in who prescribes mercury, because, as he says, "I give mercury to children when I wish to depress the powers of life."*

Evidently this doctor understands that he is expected to help the mother kill the baby as quickly as possible, for though he confesses that four grains of calomel will sometimes kill an adult, yet he also confesses that "from thirty to sixty grains of calomel have been given to very young children for croup." And though he says "a single drop of laudanum will often destroy the life of an infant," and admits that there is at least half a drop of laudanum in every dose of soothing syrup, yet he permits the infant to have one or two doses a day of it.

But this depressing of the powers of life is very trying to witness; the baby is consumed by dry burning fever; it lies motionless with wide imploring eyes, moaning in a distressing tone; it refuses food and wastes to a skeleton; it "hangs like a rag," as the nurse says, whenever she takes it up; at times it is very rest-

* Chandler R. Gilman, M.D., New York.

less, insists on being held in the arms and walked with constantly, implores for food every few minutes, and then will not take it, cries for drink and screams after drinking; on seeing its bottle of "soothing syrup," is frantic for some, and swallows it with the eagerness of an old toper in "the trembles."

Still the little creature lives on; its powers of existence are marvellous; its frail body is apparently adamant. The "depressing system" is voted a failure, and another doctor called in. This one believes in the "stimulating system" only, and for stimulus he uses whisky. Now if the infant was living on its natural food, and consequently receiving some nourishment, it would simply under this treatment grow up a drunkard—that's all! But neither doctor nor parents desire this—the object being to shorten its existence—starch of barley flour or some equally innutritious material is the sole food offered, and when this turns sour from standing too long, a pinch of baking-soda is added to it before feeding the baby!! (Did I not tell you that these miserable little creatures are severely punished for intruding themselves into respectable families where they are not wanted?)

Of course this practice soon finishes the baby; it is really too stimulating, and he is presently forced to succumb. An adult would not have been able to endure half so much starvation and torture; but really an infant is very hard to kill by any common means. All the adults in the family are worn out by the tedious and revolting process. It is, besides, very expensive, involving nurses with all their requirements, fashionable fees to physicians, a considerable outlay for medicines, sedatives, and stimulants, and at last there is the funeral and the mourning suits.

Now, for several reasons, I would have this process done away with. We live in an age of motion—whether progressive or not, is not to the point. We have done away with various modes of torture that were formerly practiced upon adults, and why continue to needlessly torment little

babies? Since we are compelled to kill them, why not adopt the quickest and easiest mode of death. Although they have shown no consideration for us, yet let us show generosity and magnanimity towards them. It will be cheaper, too, to kill them at birth, for then no funeral will be called for, and no mourning apparel needed.

We cannot very well administer at that time a deadly dose of strychnine or arsenic, because these poisons, burning and eating through the vitals, would cause terrible screams and agonized writhings, heartrending for even an educated parent to witness. And the Chinese fashion of drowning in a tub of cold water is open to similar objections; there is always a struggle when want of air causes the lungs to feel as if compressed in an iron vice.

The best and most humane plan of any that have ever been tried, is for every respectable family to keep a large block of hard wood outside the kitchen door, and as soon as the baby has been properly bathed and dressed, lay it down there, the clothing carefully protected by a sheet of rubber cloth, and with a large sharp hatchet—chop its head off! There will be only a slight start, as of surprise, and it will soon be ready for burial.

DIGESTION AND PARADISE.—All talk of blessings! What a blessing is digestion! To digest! Do you know what it means? It is to have the sun always shining, and the shade always ready for you. It is to be met with smiles, and to be greeted with kisses. It is to hear sweet sounds; to sleep with sweet dreams; to be touched ever with soft, warm hands. It is to be in Paradise. Adam and Eve were in Paradise. Why? Their digestion was good. Ah! then they took liberties; ate bad fruit—things they could not digest. They what we call ruined their constitutions, destroyed their gastric juices, and then they were expelled from Paradise by an angel with the flaming sword. The angel with the flaming sword, which turned two ways, was indigestion. There came a great indigestion upon the earth because the cooks were bad, and they called it a deluge. Ah! I thank God there is to be no more deluges; all the evil comes from this. Macbeth could not sleep. It was the supper, and not the murder. His wife talked and walked. It was the supper again. Milton had a bad digestion, because he was always so cross; and your Carlyle must have the worst digestion in the world, because he never says any good of anything. Ah! to digest is to be happy. Believe me, my friends, there is no other way not to be turned out of Paradise by a fiery, two-handed, burning sword.

TALLOPE.

MEDICAL LEGISLATION IN CANADA.

[THE following candid and judicious criticism, which we copy from the *Canada Evangelical Witness*, on the attempt of Allopathic drugopathy to control legislation in its own favor, applies as well to the United States, and to all countries, as it does to the British Provinces.]

"If we are to judge from appearances, there has been no subject so difficult for the Ontario Parliament to settle as the legal relations that should exist between the doctors and between those gentlemen and the public. Every session since Confederation has seen the introduction of one or more bills for that purpose, and the present is to be no exception. We have already seen the drafts of two proposed laws, one to amend the Ontario Medical Act, and another to incorporate the Homœopathic College of Physicians and Surgeons. The main idea of the latter bill—to give the Homœopaths control of their own affairs—seems only just and fair. For, according to the regulations of the Medical Council, the Homœopathic students have been compelled to attend sessions at an Allopathic college—a manifestly unjust proceeding. Inasmuch as they have been unable to secure fair treatment for their students from the Council, we cannot blame the Homœopaths for seeking legislative protection. As to the details of the bill they have introduced we have nothing to do. It looks complex, and is calculated to put the practitioners to considerable expense, while at the same time they surrender nearly all their rights and privileges to the two or three who compose their Council. But if they are satisfied we are.

"It was not with the intention of criticizing the provisions of either of these bills that we commenced to write, but for the purpose of speaking a word on behalf of that much abused beast of burden, the public. While the medical gentlemen are continually clamoring for laws to protect the public from unqualified practitioners, it is notable that the people have nothing to say about it. Dumb are they, like a lamb before its shearers. We are told continually that the object of all these laws is the public weal; but it is a little suspicious that all the noise is made by the doctors. And our suspicions of the *bona fides* of these gentlemen deepen when, on looking over the various measures, we find that the stringencies of the law are all brought to bear to prevent those practicing of whom the self-elected guardians of the public health disapprove, and to punish those who disobey the regulations of the Medical Council, and nothing more. It certainly looks more like a desire to protect the doctors' trade than to preserve the public health.

"Now, in the interests of the public, we beg to protest against any more medical legislation for

the doctors, and to pray for a little medical legislation for the people. It is a matter of indifference to us where a physician learns his profession, or what may be his peculiar theories in regard to medical treatment. It is nothing to us whether he has a long list of letters after his name, or none. And we do not care whether he is 'registered' on the books of his professional brethren, or whether they disown him. All we require is that the man to whom we commit the care of our bodies shall be educated and intelligent. We admit the difficulty of gaining this information; because many physicians graduate 'honorably,' as it is termed, and are yet incompetent to practice. There are many now 'registered' in the books of the Medical Council, who had better be serving an apprenticeship to the street-sweeping or wood-sawing business. The present laws but very partially secure for us the services of intelligent physicians. The chief end they serve is to hedge up the profession by extravagant fees, and to keep out all whose theories do not agree with those of the examiners appointed by the Council. By the provisions of the present Medical Act, a number of doctors meet every year in Toronto, and spend two or three days squabbling among themselves—Allopath, Homœopath, and Eclectic, fighting a triangular duel—while to meet the expenses of this medical tourney the students are mulcted in heavy fees; and, we believe, an effort will be made to draw a little from the public purse in addition.

"All the laws in the world cannot shut out incompetent practitioners. Every old woman in the country has her stock of receipts for various troubles, which she recommends indiscriminately; and the laws do not touch that class. Every drug-store is crammed with patent medicines, which are emptied into the much-enduring public stomach without rhyme or reason, and the law is powerless there; while among the doctors duly registered there are a host of incompetents who, instead of being excluded by the law, are protected by it.

On the other hand, an educated, intelligent man, no matter how well he may have studied the anatomy and physiology of the human form and the action of drugs and medicines, is forbidden by law to treat the sick unless his practice be first approved by the dominant medical schools. Allopathy, Homœopathy, and Eclecticism, do not cover all the theories of medical men; there are even some who disapprove of drugs entirely, and have their methods of treatment by purely Hygienic plans. All these are, of course, excluded by the cumbersome and intolerant Ontario Medical Act, with its innumerable amendments.

"It seems to us that if it is the public health and not the medical guild that requires the first consideration, it is time for a bill to be introduced by some of the laity without the interested assist-

ance of the doctors. All that is necessary is for a person desiring to practice, to pass an examination that will show him to be possessed of a good English education, and a knowledge of Anatomy, Physiology, Pathology, Chemistry, and the action on the body of the various medical agents. We do not see that Latin and Greek will help a man to diagnose the measles, or to set a broken leg. As to what is called 'practice,' or the mode of treatment of diseases, this is proverbially variable, changeable, and a fruitful source of disagreement. We believe in allowing a man to practice whatever 'pathy' he thinks best. If he has studied the structure and functions of the system; if he knows the condition of the body in health and disease, and if he understands the effect of the various medicinal agents, we do not think more should by law be required of him. If he has taken sufficient interest in his business to master the former, we may rest assured he will have some theory of medical treatment quite satisfactory to himself and plausible to his patients. Because his theory may not be either Allopathic, Homœopathic or Eclectic, we see no justice in prohibiting him from practice. It is very possible his plan of cure may be better than the others; and we do not want the law to hold him a knave for practicing it, or indirectly dub us fool for employing him if we see fit.

"What we ask, then, is simply that satisfactory evidence be given of the physician's general education, and of his knowledge of what may be termed the fundamental branches of medical study. This may be obtained without the cumbersome and expensive machinery now in use. All that would be necessary would be for the Govern-

or-in-Council to appoint certain parties as examiners, whose certificate of fitness should entitle the bearer to a provincial license to practice. Of course it will be said that the Governor would not know who would be qualified to act as examiner. But we should certainly prefer for him to make a selection from among the provincial doctors who may have attained any degree of reputation, than trust to the jealousies of the doctors themselves for the choice. The examination in regard to the general education, could be conducted by grammar school principals, or by the county school inspectors, while the medical examiners could be appointed from among the practitioners in the different cities. A fee attached to examination, sufficient to compensate the examiner for the time he might spend, would be all the expense to which the applicant need be submitted.

"A simple scheme like this would accomplish the desired end better than the cumbersome machinery now in force. That it would be satisfactory to the doctors is doubtful. It is not sufficiently 'protective' for their business. But it would be sufficiently protective for the public, while at the same time it would be liberal and fair. We claim the right for every citizen to enter upon any occupation that he chooses, and we fail to see the justice of incorporating a professional trades-union which allows its members to keep out all of whom they do not approve, or who may not have money enough to pay all the 'entrance fees' they may fix. It is high time the interests of the public were taken into consideration, and that legislation for the protection of a special class, or for the granting of monopolies to a favored few, should be discontinued."

TROTting AS A REMEDY.

BY J. A. WILLIS.

My watch wouldn't go; it was of no use to tamper with it any longer; go it wouldn't, and there was an end of it. It would make a very fair pretence for awhile, and then deliberately stop just when it was most important that it should keep on. I sent it to the jeweler's; he returned it with a bill, which grinned the moment I looked at it, for the watch still had the better of us both and kept on just the same as before. I let it run down, thinking perhaps it would regulate itself after it had a good rest; and, sure enough, it went for two or three days pretty well; then the old hitch came back worse than ever, as if it were sorry it had put forth any effort toward reformation.

I was thoroughly out of patience, as any one will be who has sworn all his life by his watch; but now I began to have an affection for it, as, by some singular contrariety of human nature, we all seem to have for anything that is bad and gives us trouble. It was a sort of prodigal son, who didn't and wouldn't appreciate past advantages, and must somehow be coaxed back into the old ways again; for, like most fond parents, I began to attribute the derangement to a peculiar and unhealthy state of the system. I took to feeling sorry for the poor thing, and treated it compassionately, like a sick child. I lifted it tenderly in the morning when I placed it in my vest

pocket, and laid it down even more carefully at night. It seemed so positively human in this queer, uncoaxable condition, that it continually appealed to my sympathies.

A horseback ride—of course, why not? It would be just the thing this fine autumn weather; and then, perhaps, it would do the watch good; at any rate, as the wisest of doctors tell us, when they mix our potations, "there would be no harm in trying." I finally decided, after carefully listening to its pulsations, to take it out trotting; which remedy, I saw clearly in my "mind's eye," would, like most remedies, either kill or cure.

How I enjoyed that ride, as I reflected upon past attempts at reformation, and knew the old watch was getting it now. Then I recalled the sympathy and tenderness it had so frequently awakened, and slackened my horse's speed. I began, too, to experience a sort of remorse at the consciousness that, after all, my knowledge was no better than a quack's, and I might kill instead of cure. Somehow this sense of guilt must have imparted itself to the horse, for he started on as if rushing away from his nobler convictions.

That night I took out my watch with eager and impatient curiosity. It was going; both hands were in the right direction, and the time tallied exactly with the clock on the mantel. What could it mean? I was in a tremor of exquisite delight; my quackship had proved a success; the experiment, since it didn't kill, must inevitably cure. Next night it was the same; and the next, and the next; there was no longer any doubt as to the wisdom of my extreme measures. I have set myself up now in the trade, and consider my opinion as authority upon most points.

I have found out that if a man studies one thing thoroughly—his watch, for instance—it gives him a deal of insight into other matters. Experience has shown me that most people need shaking up; there is nothing like it for a regular chronic disorder, whether mental or physical. If a man is "out of sorts," a little

treatment of this kind helps him to find out what is the matter with him. We have heard of railroad accidents and other terrible shocks which have, by some strange phenomenon of nature, resulted in restoring to men faculties which had been lost for years. I take it that the cog-wheels of our mental machinery get so beclugged with all the rubbish of our mortal lives, that we occasionally need a tremendous shaking to sift out the small ideas, so that what remains can be laid hold of.

It not infrequently is the making of a man to be refused by the first girl to whom he offers himself; the jolt does him good; he begins to take a different estimate of the *ego*, and generally arrives at more temperate conclusions regarding himself. It would, perhaps, under favorable circumstances, have taken a whole life-time to have reached an equally correct reckoning.

It occasionally does a church more good to trot itself out into the open air—to be turned out of its own sanctum and get shaken up with the common people—than any other remedy that can be applied to it. Ten to one, it will run smoother and with fewer hitches after such an experience, than it ever did before in its life.

The calculus fails me in attempting to estimate the benefit a lazy man receives from a regular shake up. No one is as much surprised as himself to find the machine still in running order; as a general thing, he has coaxed it so long that he has persuaded himself into the belief it can't go; but a good, heavy jolt sets the whole establishment in motion.

Conceited people, who have sailed all their lives on a smooth sea of self-complacence, get more sense knocked into them by running against a snag than one would ever have believed them capable of possessing. Such concussion helps one to a knowledge of his own light anchorage; which knowledge is commonly the most needed ballast a human craft can carry. Whatever sets men going; whatever results in a steady, onward movement, must be esteemed a blessing,

whether the jolt which produces it is a religious, political, or financial one.

When affairs have once more righted themselves, and a re-adjustment takes place, we shall find that this great national trot, which has set everybody in motion and shaken things to their foundation, was, after all, just the sort of jolt we most needed. Prices wouldn't come down, and now they have had to tumble down. Monopolies, which were always feeling for other men's pockets, have had

to dig deep into the depths of their own. Capitalists, who have picked golden fruit from branches which hung high above other men's heads, have had to divide their spoils and take rank with those who seek—not grasp.

This great overturning will in the end set all the wheels in motion—who can doubt it? Wait for the next day, and the next, before you shake your head and say, "No!"

THE FOOT HILLS.—LIFE IN CALIFORNIA.

BY C. F. YOUNG, M.D.

THE call for copy has come, but my heart is so full of silvery sunshine, it is disagreeable to think of sickness. Please allow me to tell you of these glorious days marching up from the tropics, or let down from Heaven—which, we cannot tell.

The mornings are frosty, this 25th day of February, but do not hurt the fragrant violets, or retard the minute blossoms, unfolding golden, and pink, and purple petals all along the sheltered places. Eucalyptus, orange, and pepper trees are showing fresh, green terminal growths, while many of the dark-colored leaves are dropping off.

The Manzinetas are full of fragrant, white blossoms. Thousands of those who ventured out a month ago, are now so intoxicated with sunshine, their white blooms are flushing pink and almost red.

All the windows and doors of the houses and cabins of our "Heathen Chinese" are adorned with dishes of fragrant lilies (they call them), a species of hyacinth growing in pure water. Yesterday we saw many hardy plants that have retained their vigor through our unusually cold rainy season, and are now scarlet and crimson with flowers. These cultivated beauties are by no means common in town or country; here, as elsewhere, people are too indolent to invite beautiful things to dwell with them.

Nearly all your half-hardy and many

tender plants grow out of doors in the borders all winter.

Clover (Chili or Alfalfa) meadows, on the bottom lands, are nearly ready for the mowers. Peas and strawberries are now about where yours—in Western New York—will be on the tenth of May, growing finely, and with half-grown berries.

The gardeners [few people have gardens. Why? It is said to be cheaper to buy!] are very busy planting, transplanting, and daily sending out wagons loaded with fresh, crisp lettuce, beets, carrots, parsnips, cauliflowers, and cabbages that have stood in the ground all winter. On the edge of Amados County we passed a fine acre garden of vegetables and fruit, worked by seven Italians, whose income over expenses equals through the year forty dollars a month to each person. They have hay land and pasture, beside the garden; but the money comes from the latter. The owners of small farms have said, "suppose we all had market gardens, where could we sell our produce?"

We answer—read, look up the market-reports. A hundred in this one county might profitably raise bird-seed. In the three counties three thousand might dry raisins. A hundred farmers might make grape-syrup, worth as much per gallon as the best golden syrup, and much more salable in this State. With only three years of waiting, five acres of plum orchard can be brought to bearing. The

fruit, dried and nicely packed in five and ten pound boxes, warranted free from worms, would find ready home market at 20 cents a pound.

A section of country equal to the State of Rhode Island has but one flour-mill. Bordering vast forests of pine and cedar, there is not a tannery in it. With the possibilities, through energetic industry, of great wealth, the people are anxious "to sell out," and move along to Arizona or back to "the States."

Last week we saw a charming place, set like a rare jewel in the rocky hills on the edge of a mining camp, with a background forty miles away of snow peaks—one of the best watered, most fruitful places in Calaveras County—home-like and snug—one hundred and sixty acres—for \$500. The apples would pay for it any one year. Higher up, where there is a light snow-fall, and real old-fashioned greenings and spitzenburg apples grow to perfection, there are thousands of acres of hilly, half-wooded land for sale at \$1.25 per acre, yet open to homestead settlers. Timber abundant; water good. The strips of valleys very rich and productive. The climate all that could be desired—light snows that remain a day or two only.

People wishing to secure these homes should not go to San Francisco, to be wearied and worried by sharps and speculators, but leave the cars at Sacramento or STOCKTON, where, at reasonable rates, they can outfit with seed, side-hill plows, wagons, horses, and harness. Come in October or November, while the roads are good, then drive from fifty to seventy-five miles to the country back of Jackson, or Placerville, or Mokelumne Hill. A rough, dry, dusty, three days' journey, after that you will find the dells and nooks and valleys, where all the elements exist with which to make most beautiful and profitable homes.

The speculators are after these mountain lands with their railroad schemes. Those of our health-reform eastern readers who wish to buy cheaply, must come along as soon as possible.

POTATOES,

for the largest number of the people in these countries, are three cents a pound, and freighted two or three hundred miles.

The mining and gold-prospecting fever yet rages among the children of '49-ers. The balance of the people are largely from the old slave States, and not very friendly with work; but enough has been done to prove that the finest quality of potatoes can be grown, two and three and four tons to the acre.

We have nowhere in our three weeks' ramble through these counties, found eggs less than thirty-seven cents a dozen; but the country women said, "It don't pay." We think it would pay to buy them at that price, and ship them *via* Stockton steamers to San Francisco, where fifty to sixty-five cents a dozen is the price.

Let eastern energy and industry come this way and try it! Take out groceries and notions, bring back eggs, butter, dried fruit, and feathers. This past week we sit to sew and write by open windows, without fire, from ten o'clock A.M. until four P.M.

Mt. Diabolo, forty-five miles away, wears each night and pretty late in the morning a snowy cap. The Sierra Nevadas, along the eastern horizon, are clear cut, cold, and white against the sky.

Linnets, black-birds, and robins are full of trills and joy notes. The whole south-land is jubilant over crop prospects. "Wheat! wheat! wheat!" next after "gold," is the idol of the people. Little labor—ready sale—good prices.

We wish we could send each one of you an orange such as came from a seedling tree at Mokelumne Hill last week. As we cannot, the next best thing is to come and raise them for yourselves. Do not expect an Eden ready-made, but go to work with a will, and complete that which God and nature has commenced.

A VIRGINIA paper states that a lady in Ritchie County, eighty-three years old, recently became a mother. Her husband is seventy-seven years old. Her youngest child, previous to the last one, is a grandmother. [Guess not.]

BLOODOPATHY.—A NEW REMEDY.

BY R. T. TRALL, M.D.

I have read in medical journals of blood-pods, cod-liver oil, preparations of iron, hypophosphites, etc., and I have learned in the works on materia-medica and toxicology, that they are only so many blood-poisons. I have heard of blood-puddings, but have never seen the article. Some years ago, a market-woman informed me that they were made of pig's blood, hog's lard, flour, sugar, and salt. I can conceive of no possible improvement, unless it be the addition of alcohol or tobacco. Less than a dozen years ago, a professor in a New York medical college, in a clinical lecture before his medical class, prescribed blood-gravy as a part of the dietary for a scrofulous child. But it is with blood as a medicine that we have now to deal; therefore, the following paragraph, now traveling the circuit of newspaperdom, is in point :

The *Boston Journal* mentions several cases in which invalids have been benefited by drinking warm blood. It says : Mention was made recently of a gentleman in a very feeble state of health, who had been for some time at the Butchers' Abattoir, in Brighton, for medical treatment, simply drinking a half tumblerful of warm blood twice a day. This course the gentleman, Mr. C. H. Stickney, who is willing that his name shall appear, has followed until a week ago, having been there ten weeks, and during that time gained ten pounds in weight, and, to use his own words, "My appetite is good; I sleep well and feel like a new man, and I am soon to commence business again in Boston." He also says that there are ten or twelve others there, drinking the blood, all of whom are gaining under this treatment. One gentleman from Boston, a consumptive so feeble that it was with difficulty he could get to this abattoir, is now able to handle an axe skillfully enough to "knock down a bullock." A lady from the city who has been sick six years, stricken with paralysis, is improving wonderfully by this "blood cure." A gratifying feature of this cure is that it is "without money and without price," and Mr. Stickney speaks in praise of the gentleman in charge of this establishment, and says strangers visiting the place will find courteous treatment.

There is no disputing *ordinary* facts, but extraordinary ones may be more or less liable to suspicion. Medical facts

are unlike any other facts in the world. They belong to a genus in natural history which may be termed *sui generis*. Less than a hundred years ago, Professor Gregory, of Edinburg, Scotland, said to a medical class : "Gentlemen, ninety-nine of every hundred medical facts are medical *lies*." A few years ago, an eminent European medical professor published the particulars of a specific which he had discovered for hydrophobia. It had cured fifteen hundred cases without a failure. The article was published in many of the leading newspapers in this country. But now no one believes there was any truth in it. Two years ago it was proclaimed through all the land that Cundurango was a cure for cancer. A marvelous cure was attested by a Vice-President of the United States. But who believes in Cundurango to-day ?

Admitting the wonderful improvement of the paralytic lady, the "knock-down" ability of the feeble consumptive, and the ten pounds' augmentation of a Mr. Stickney, the question still remains, what had the blood to do with it ? The patients, in going for the blood-cure, may have abandoned worse habits than drinking warm blood. The ordinary drugs prescribed in these cases—strychnine, whiskey, cod-liver oil, tartar-emetic, etc.—are ten times as injurious as fresh blood. If the sum total of all the patient's habits, as to eating, drinking, ventilation, drugging, etc., were better while partaking of the blood-medicine, or less injurious, we have a solution of the problem. Medical records are prolific of statistics showing that consumptives and other chronic invalids have "improved wonderfully" soon after abandoning all active medication, and resorting to some simple and almost harmless "*specific*," as whey, grape-juice, flesh-jelly, extract of tomato, etc. A few years ago, the celebrated Dr. Cartwright, of New Orleans, announced, in the medical journals, the "sugar-house cure" for consumptives. Patients improved won-

derfully on discontinuing all drug treatment and breathing the vapor from the boiling sap in the sugar-houses. And no wonder. The vapor was almost as harmless as that of pure water, while the drugs were pernicious poisons. But the sugar-cure did not flourish, and I predict the blood-cure will have only a brief run.

But if blood is good for food, or a good medicine, surely there ought to be some way to understand it, and we respectfully ask the medical profession to give us the rationale. Two years ago, a New York medical journal suggested the idea of utilizing the ninety tons of "warm blood" annually wasted at the Communipaw slaughter houses. But if this ninety tons of blood can be utilized as medicine, will not the utility be vastly augmented? It would supply medicine enough for one-tenth to one-twentieth of the invalids of New York City, so that one or two thousand drug shops could be dispensed with.

It is true that the "Bible argument" suggests an awkward "metaphysical disquisition" which might, by some stretch of interpretation, be brought to bear on the subject. The Old Testament, somewhere (see Gen. ix.; also Lev. xvii.), prohibits the *eating* of blood under the penalty of capital punishment; but Moses did not say that no one should drink warm blood at the Boston Abattoir. The New Testament also condemns the practice of blood-eating (Acts, xv.); but I do not recollect that the Apostles say anything against *drinking* it as a medicine—certainly not in Boston.

Bloodopathy, however, is not a new notion, if it has originated in Boston. Like alcohol, blood has more than once been introduced as an *elixir vita*. But, like all other "supporters of vitality," outside of normal agencies, it has only hurried the patients to their graves.

Louis XI., of France, in his old age, drank the warm blood of infants to prolong his miserable existence. How many innocents were slaughtered in the vain hope of rejuvenating his old age, history has not recorded. We do not mean to

intimate that, if bloodopathy succeeds drugopathy and hydropathy, and becomes the prevailing "law of cure" "down east," and the blood supply becomes deficient, the Bostonians will resort to the surplus infantile population for "half-tumblers of warm blood twice a day;" but we cannot help asking ourselves the question, what may *not* folks do in emergencies?

In conclusion, a little cyphering will present this subject in its financial as well as remedial aspect, and elicit sanguineous reflections. Allowing the blood which is shed in and around Boston to be half as much as the quantity spilled in the vicinity of New York; allowing one-tenth of both populations to be invalids, and a pound of warm blood to make four doses, we figure to the conclusion that all the blood available only makes 3,600,000 doses, while not less than 36,500,000 doses are required. We leave the reader to his own conclusions.

SKIN GRAFTING.

A CASE of grafting the skin of a white man on a negro is reported in the *Philadelphia Medical Times*. A negro had been wounded in the face by the accidental discharge of a gun. The sloughing was so extensive that there resulted a disfiguring wound, covering nearly the whole cheek. The physician obtained consent of the patient to graft the skin of a white man into the wound, and took from his own arm portions of skin for this purpose. The process was a success, so far as to insure the growth of one of these grafts, which enlarged from the size of a canary seed to about half an inch in its greatest dimensions; was of an irregular form, with narrow points extending to the surrounding black surfaces. After the wound had entirely healed, the white was readily distinguished at a distance of twenty or thirty yards; but examination showed dark-colored lines, forming a net-work in the white skin, giving to it a purplish tinge. These were supposed to be blood-vessels, which increased in size and number, producing a corresponding decreasing of the color, and at the end of about three months the skin was of a uniform blackness; the white skin had lost its distinguishing characteristics.

"A TERRIBLE LESSON FOR MOTHERS."

ANOTHER SIDE.

"A FELLOW-FEELING makes us wondrous kind," is a sentiment indorsed by all ; but that we sometimes feel wondrous kind without the fellow-feeling is also true. Since I read the "lesson for mothers" in the *SCIENCE OF HEALTH* for February, my heart has been wildly beating in sympathy for poor Mrs. Pray ; and the more I tell it to be still and mind its *own* affairs, the more loudly it asserts that Mrs. P. *needs* sympathy ; and for fear no abler pen comes to the rescue, I have determined to drop a few thoughts which I am confident can do no harm, and may possibly possess a healing virtue to such an afflicted mother. That you may know from what stand-point I view this domestic tragedy, I will state that I am a wife and mother ; that no "soothing syrup" bottles are hidden away under my sink ; nor mysterious "*preventives*" locked in my bureau drawers ; and that the *almost* five years of my married life have brought me only *one* "little circumstance" to lay in the cradle ; that she met a hearty reception, and is looked upon as a "crown" rather than a cross. Neither do I live in daily dread that numerous other little circumstances will come at unlooked-for and inconvenient times to interfere with my home duties. Hence, when I say I sympathize with Mrs. P., I would not be understood as indorsing the too common practice of infanticide, either pre-natal or ante-natal, either innocently(?), *ignorantly*, or knowingly. But I *do* mean that, in my humble judgment, Bertha Dayne should have placed *part* of the blame in said tragedy at the door of Mr. John Pray—the man with the *placid* temperament. Any man who contemplates filling the responsible position of husband and father, should so far acquaint himself with the laws of life and health as to *know* that no woman ever lived in whom "the great marvel of creation was wrought anew each year," without manifest injustice to the creator, or the created, or *both*. No wonder that

the minds of many such mothers become so weak as to render them incapable of exercising that good sense which would soon starve out the vendors of soothing syrup, and introduce the hygienic practice of living. Our man should also know that if he wishes his children to be "Cedars of Lebanon," instead of "unfruitful fig-trees," or deadly night-shade bushes, that this haphazard, accidental, ill-timed, broadcast style of planting will not do ; but that the soil must be kept in good, healthy condition, the seed *perfect*, the plants set from three to many years apart, and the cultivation the *best* that can be given by the *united* efforts of intelligent, loving, responsible parents.

"Was ever a poor woman in this world harassed with babies as I am?" Yes, Mrs. P., *thousands* of poor women all over our land to-day know by experience how to pity you ; but few of them have either *time* or *heart* to tell you so. And you are harassed with *babies*, too ; not with *preserves*, not with *pickles* ; but with those "clinging, helpless souls, which but for you might never have entered the thorny labyrinth we call life." Ah ! hold ! Is it possible that *you* had a voice in calling into life these helpless souls, and that you are now deliberately dealing out to them a poison which will surely end that life ? Then I envy not your position, *here* or *hereafter*. But, *is* this the case ? "Aye, *there's* the rub." Legions of wives will rise up in self-defense at this charge, and acknowledge with humility and shame that on this *one* point at least—this *all-important* point—they and their husbands are *not one* ; that *they* are allowed no voice in the matter ; but are mere machines, handled at the will of those who have sworn to *love* and *cherish* until death.

I have *heard* of husbands who claimed that this course was not only humane, but actually *scriptural*. To prove this claim they refer exultantly to the scripture which reads, "Wives, submit your-

selves unto your own husbands *as* unto the Lord. For," etc. "Therefore, as the Church is subject unto Christ, so let the wives be to their own husbands in everything." Sure enough, here we have the words of inspiration placing wives in *submission* and *subjection* to husbands; but may we ask the nature of this subjection? "*As* unto the Lord;" "*As* the Church is subject unto Christ." What more *willing* and *cheerful* obedience can be imagined than that of an intelligent creature to its Creator, or of a Church to its living head—the Christ? To such husbands as are fond of construing this scripture to suit their perverted minds and bodies I would say—Let us look a little farther into that Book of books, and see what more consolation is offered.

"Husbands, love your wives, *even as* Christ also loved the Church and gave himself for it. . . . So ought men to love their wives as their own bodies. . . . For no man ever yet hated his own flesh; but *nourished* and *cherished* it, even as the Lord the Church. . . . For this cause shall a man leave his father and mother, and shall be joined unto his wife, and they two shall be *one* flesh. This is a great mystery. . . . Nevertheless, let every one of you in particular so love his wife even as himself; and the wife see that she reverence her husband." Again, the husband is taught to give *honor* unto the wife as unto the weaker vessel. What plainer teaching could we ask than this? I venture to predict that when men can bring their wife-love up to the test here laid down, that nine out of every ten of them will be blest with cheerful, obedient, and loving wives. I predict also that there will be more *homes* and fewer stopping-places; more chemical affinities and fewer mechanical mixtures on the sea of matrimony; more *men* and *women*, and fewer human wrecks brought on the stage of action.

Many of these semi-brutal husbands excuse their intemperance on the ground of so great *love* for *children*; yet, the wives of these same men will tell of ill-treatment and hard words from the husband *because she is so fruitful*. The same lov-

ing (?) father often threatens to "skin alive," "mash the head," "whip within an inch of life," or "throw in the well," some of these little "pledges of love" if they don't behave themselves, *i. e.*, don't cease to give *him* any trouble or care. We have seen John Prays who "wonder how the poor babies are faring," when the poor over-burdened mother must neglect them for a time to sew on his lordship's buttons, or perform some other duty equally pressing; but loses much of his fatherly interest when seated by a cheerful fire with his evening paper, until some smothered laugh, or, perhaps, a cry, disturbs his sweet peace, and he informs his wife that she must lay aside her sewing and keep the children quiet; he can't bear to see them neglected just for a little sewing, and she can do that some other time—while he and the children sleep.

It is a common practice of these prolific fathers to excuse their glaring neglect of duty to their families, on the plea that *God* has given them so *many* children that their whole time is required to supply the bodily necessities; so they can do nothing by way of educating and training the mind. Perhaps *God will* forgive the parent who neglects to "train up a child in the way he should go," since *He gave* the children; perhaps *He* will forgive the drunkard, since *He gave* the whiskey; perhaps the thief, since *He gave* the plunder; perhaps the liar, since *He gave* the breath; perhaps the murderer, since *He gave* the victim; perhaps the whoremonger, since *He gave* the passions; and, perhaps, *He forgave* Pharaoh, because *He "hardened his heart that he would not let the children of Israel go,"* but the history shows that he was *not* forgiven, but punished. All these things *might* have been, had we not been endowed with *reason*, and with a knowledge of good and evil, and commanded to be "*temperate in all things.*" When human reason, instead of animal passion, directs the actions of men, *God will* cease to burden them with larger families than they can care for.

Now while we drop the tear of sym-

thy with poor, heart-broken Mrs. Pray, we beg that her devoted husband will "carry half" her burden up life's hill; and while she teaches "Thou shalt not stupefy the brain with poison," let him add, "Thou shalt not sacrifice both body and brain on the altar of perverted passion."

"Oh! the infelicities"—when will they cease? When fallen man is raised from a position but little higher than the brute, to that "a little lower than the angels," where God left him.

Long live the SCIENCE OF HEALTH to pioneer the work. MADGE T.

HOW THE GOUT CAME.

AN old Scottish gentlewoman (one of those genealogical ladies now becoming rare) would never allow that any but people of family could have *bona fide* gout; if it was mentioned that a *roturier* was afflicted with that disease, she would shake her head: "Na, na! it's only my father and Lord Gallowa' that have the *regular gout*." In *Blackwood's Magazine*, 1863, in a paper of surpassing humor, appeared the following:

"That pain which you feel in the joint of your great toe," quoth Monsieur Gout, "has, you flatter yourself, become rather less since eight o'clock, when you took your last dose of colchicum. Quite a mistake, my dear sir. The member is, if anything, more swollen and inflamed than before. Observe, now, I shall take the liberty of inserting this little awl, just by the way of probe. Aha! it makes you wince. A very good sign that, however, since it proves that there is no ground for apprehending immediate mortification. Now, do you know why it is that your toe is so singularly sensitive? I'll tell you. You remember, three years ago, ordering a batch of Burgundy? Previous to that time you had been in very good health, for you had plenty of occupation and little leisure for gluttony or wine-bibbing; your means were limited, and during the holidays you took a sufficiency of pedestrian exercise. Really, in those days, I never expected, to have the pleasure of making your acquaintance. I considered you just the kind of fellow likely to become an ornament of the Alpine Club. But your estimable uncle, old Jones, the stock-broker—bless you, I knew him very well indeed! many a time have I chatted to him when he was roaring like an aggravated bullock—your old uncle Jones, I say, died and left you his money—you are not going to sleep, are you? Well, I call that rather unhandsome treatment, considering that I have taken the pains to come here and bear you company. A slight touch of the pincers may, however—aha! all's right again; you are as lively as a snapping-turtle. Whereabouts was I? Oh, I remember. Old Jones left you his money, and you determined to take your ease. No one can blame you for that. What's the use of fagging to make more when you are in

possession of a cool \$20,000 a year, and may indulge in a shooting-box and hunters? But you could never make up a respectable bag on the moors, and on horseback you were anything but a Ducrow. You preferred living in town, took chambers in the Albany, gave nice little *recherché* dinners, and laid in that stock of Burgundy to which I have already alluded. It was of a fine vintage, strong and heady, and made the blood circulate in the veins like lightning. To it I attribute the honor of our first introduction, though port and claret, not to mention sundry kinds of delicious *entremets*, did undoubtedly contribute to lessen the distance between us. Then you took to late hours, hot rooms, and *ecarte*, almost justly included in the catalogue of fashionable pleasures; and our acquaintance, at first only slight, has now ripened into permanent friendship. But I really must not allow my feelings to divert me from the scientific purpose for which I have visited you to-night. Don't be afraid. I shall lay aside awl and pincers, and vary the experiment by injecting a few drops of molten lead between the flesh and the bone. Ha! what an enviable yell! Your lungs, I can assure you, are in a perfectly healthy state, and may last you for the next twenty years, if you don't force me to get into your stomach. By-the-way, what a silly proverb that is against pushing things to an extremity! It is with the extremities I always make a point of dealing in the first instance, and I take it that very few people would wish me to depart from the practice. What is it that you say? You wish that I would go to the devil! Pardon me for hinting in reply that you are both rude and unreasonable. I am here, as you well know, in consequence of your indiscretions."

"Archbishop Sheldon not only wished for gout, but proffered \$5,000 to any person who would help him to it, looking upon it as 'the only remedy for the distress in his head.'"

[Those over-fed Englishmen who would escape the gout, should read THE SCIENCE OF HEALTH, and learn something of Hygienic living. Plain food, with plenty of useful employment, with a mixture of manual labor, would prove "remedial" to many an over-fed and idle invalid.]

POISONOUS TEA.—The *Brooklyn Union* has been made ill by drinking bad tea. He proposes extreme measures with the importers and dealers. Hear him: "The courage of the Boston Mohawks, who threw the tea into Boston harbor a hundred years ago, is required to-day in New York. The vile stuff that arrives here by the cargo from London, in tea-boxes, under the name of Oolong, Powchong, and Souchong, to poison our innocent people, who imagine they are partaking of a beverage that cheers, but does not inebriate, is a wretched imposture. Millions of pounds of this manufactured stuff, which the law prohibits the sale of in the English markets, have been shipped to New York, while many more millions of pounds come to us direct from Chinese ports *via* the Isthmus Canal. It ought to be seized and emptied into the Bay, although its deleterious qualities might prove destructive to the moss-bunkers and minnows."

[The *Union* man is not the only one who has suffered by imbibing bad drinks. Why not try pure water instead? Water is best to quench thirst. It may be taken cold, tepid, or hot, without the poisonous tea, and it would be far less injurious. Try it.]

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.



FISH AS HUMAN FOOD.

BY JULIA COLMAN.

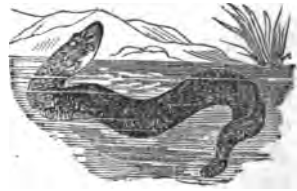
Fish-eating Among the Ancients—The Value of Fish as Food—Fish Carnivorous, Offensive, and of Doubtful Value to the Intellect—Baked Shad—Boiled Cod—Tomato Fish Sauce—Small Fish—Fish Balls—Stewed Rhubarb—Rhubarb Vinegar—Rhubarb and Dried Apples—Cranberry Marmalade—Cocoanut Cracknels.

If "necessity is the mother of invention," it must have been some dire necessity that "invented" the use of fish. Its smell is enough to prevent its use by a discriminating taste; but hunger is not over delicate, and it soon dictates laws to taste. Some of the most cultured people of early times ate little or no fish, among whom were the Jews and the Egyptians. Homer's heroes do not eat fish, and Ulysses apologizes for the eating of fish by some of his companions, on the score of their being very hungry.

This view of the practice of fish-eating is much more plausible than to suppose, as some theorists do, that it is developed in the ratio of civilization. Although some more skill might be required to devise instruments for fishing than for agriculture and for hunting; yet this point gained, we do not on the whole find piscivorous peoples any more advanced than others. Locality has much to do with fixing the diet, especially of any uncultured people; consequently we find some

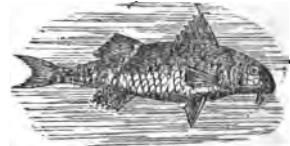
rude tribes subsisting almost entirely on fish, and others not eating them at all.

Luxury, however, lays all things under tribute, and it often finds development in the extravagant and capricious use of articles not the most wholesome and nutritious for food. Few better examples of this can be found than in the use of fish by the Greeks and Romans during the period of luxury among them. The rarest and most expensive fish were in the greatest demand, and emperors and senators vied with each other in extravagance. It was no uncommon thing to pay \$100 for a lamprey, or \$50 per pound



THE LAMPREY.

for red mullet; and one of the emperors kept four or five ships constantly employed in supplying his table with these

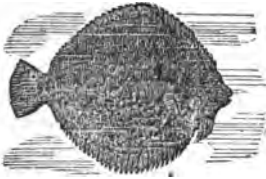


THE STRIPED RED MULLET.

rare fish. Not considering it sufficiently expensive to eat the flesh of these costly fish, they selected the liver, and at last Heliogabalus had the gills only served to him at a fabulous cost. When a large turbot was caught in the reign of Domitian, he convoked the senate that they might decide how it should be cooked. After a long and stormy debate, they decreed that a dish should be made purposely to cook it in, and that a stove

should be built large enough to cook the fish entire.

Reservoirs were built on their princely



THE TURBOT.

estates, in which fish were kept both for the table and as pets, though this did not prevent their cooking the dear creatures alive, that they might heighten the pleasures of the feast by witnessing their dying agonies. These pets were sometimes fed with human flesh, and slaves who were so unfortunate as to offend their masters, were actually thrown alive into the tanks and devoured by the fishes. After a knowledge of such facts, no one will be very likely to claim for these fish-eaters a very high degree of refinement and civilization.

With regard to the value of fish as food, there have been all sorts of extravagant notions and statements. Soyer, who gives us numerous useful and entertaining facts in the history of ichthyophagy, speaks of fish as a "delicate and savory alimentation, which might replace coarse and solid food." Now Soyer is no physiologist, but he does pay some random attention to the digestibility of food, mixing up facts and fancies curiously or sarcastically, as the notion takes him. He mentions one king and several other individuals that killed themselves with eating fish, and he gives many other proofs of its unwholesomeness.

Of late years there has been much discussion, or perhaps I should say many blind assumptions as to the food value of fish. It is roundly asserted that the feeders on fish are brighter and more intellectual than other people. But a close examination of facts shows the superficiality of these statements. The comparison runs between the dwellers inland and those on the sea-shore. In a barbarous state of society, those on the sea-shore would naturally show the more

enterprise on account of their very location, and their having one more element to call out their ingenuity. In a higher state of civilization, many of the more enterprising naturally seek the vicinage of great waters, where the seats of commerce must be located.

But among the most highly civilized peoples we find the very lowest, the least intellectual, and the least enterprising classes of people among the fishermen and oystermen, and among the fish-women of the market.

Among the nations that subsist largely on fish, I cannot recall one whose culture is any special commendation of their diet; while there are many piscivorous tribes that, like the Esquimaux, sustain but a very low grade of civilization in any respect. Indeed, the evidence of this kind seems to be all in opposition to fish as a diet promotive of intellectuality.

Further, let us glance at the arguments from the nature of the food in favor of fish as an article of diet. In the first place, it is alleged that fish live in a pure element. Granted that the water in which fish live is usually pure, it cannot be so pure nor so limpid as air, in which all birds and land animals live. The breathing capacity of fish is much less than that of most land animals. The quantity of their blood is small, and its circulation is sluggish, and therefore the chances of their getting rid of the impurities of the system are proportionally small. Granted that they bathe more—it is only the outside of their scales that gets washed, and those of course we never eat, so it is at least an open question if they are really any cleaner than the land animals that bathe less.

If we turn to their supply of food, we find them nearly all carnivorous. One fish after another has eaten the same matter, through no one knows how many changes. In land animals such a transfer of matter soon stops, because carnivorous animals seldom feed on carnivora.

On examining the quality of fish flesh, we find the amount of its nutrition very small. If it be more easily digested than some other food, that would be no won-

der, when we consider how many times this much eaten matter has been digested; but it would be a wonder if we should obtain much nourishment from it. Accordingly we find that large quantities of fish can be eaten, and are habitually eaten, by those who live mostly on this sort of food.

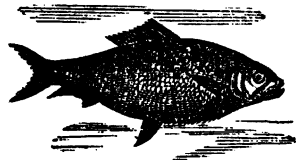
If we consider the verdict of the sense of taste, while habit may make us very fond of fish, there are always some portions, like the skin and the fat, which are disgusting, and any part of the flesh itself, or its juices, is exceedingly so if we alight upon it or upon any trace of its flavor unexpectedly with other food. The sense of smell is also exceedingly offended by fish in most shapes. To say a thing smells fishy, expresses volumes of condemnation. The clothing and the utensils of fishermen are very offensive. The places where fish are cured, are nuisances usually located at a distance from human dwellings. The stench that arises from decaying fish spread upon the land as manure, sometimes breeds a pestilence. Fish markets are the most offensive of all markets, though some of the others are bad enough. Fish, when carried to customers, must have separate baskets and other utensils appropriated to its especial use; the hands that handle it must be washed before they handle anything else. The stench of its cooking fills the house. In fact, it pollutes everything in its vicinity, both before and after cooking, and in houses where its use is infrequent, its stale odor can be perceived for days afterward. Usually its bones and other unsightly offal remain for months on the ash heap to offend all that pass by; or if they are thrown into the fire, the smoke from them disgusts the whole neighborhood.

As an offset to all this, we are told that fish contains phosphorus, which the brain needs, in order to make it active and vigorous. This, by the way, is the reason given for the splendid intellectuality of fishermen and fishwomen. We are also gravely told that Gerald Massey dines on fish every day for the benefit of his intellect. Now, though I am quite

unable to say what Gerald Massey would be without a fish diet, I fail to find such remarkable brilliancy or power or cleverness in his intellections as to lead me to adopt his diet. I would at least wish to see plausible reasons for expecting to improve my intellectual condition upon such a diet before adopting it. I should wish to know if I might not as well get the little modicum of phosphorus which the brain needs from mutton or from oatmeal, either of which is much sweeter, cleaner, and more nutritious.

Little, however, as we have reason to expect from any fish, some are worse than others. The very oily fish, and the fish that look dark, and the fish that smell strong in cooking, are especially to be avoided. This bad material for food can also be made worse by the manner in which it is cooked. The worst style is the most common; namely, that of frying in fat or in butter. If baked, too, it is usually saturated in fat of some kind. This is all unnecessary. Fish, can be baked, or boiled, or broiled without fat. Boiling is perhaps the least objectionable mode of cooking it. For those who must cook it, because their families have not learned better than to demand it, and for those who wish to taper off gradually, we give a few recipes; but let no one infer therefrom that any style of cooking can impart the nutrition and the wholesomeness that are naturally wanting.

SEASONABLE RECIPES.



THE SHAD.

Baked Shad.—Scale and dress the fish and wash repeatedly. Rub it within and without with salt, and if there is time, let it lie for an hour. Then place it in a shallow nappy and fill it to half the depth of the fish with canned or stewed tomato, seasoned, if liked, with very finely minced onion. Bake gently until quite tender, from forty-five minutes to an hour, according to the size of the fish. Dish on a hot platter, and set the nappy on the fire and thicken the sauce remaining in it

with a little wheat meal rubbed in water. Dish in a gravy bowl and serve with the fish. This recipe answers equally well for haddock and other white-fleshed fish.

Boiled Shoulder of Cod.—Take the upper half of a fresh cod, well dressed, pin in a napkin, place in boiling water with salt, and let it boil thirty or forty minutes, according to its size. Turn out upon a hot platter, and serve only the fish without skin or bone. Dress with the following sauce:

Tomato Fish Sauce.—To one pint of the water in which the cod was boiled, add one pint of stewed and strained tomato. Salt to the taste; thicken with one gill of wheatmeal rubbed in water, and boil five minutes. If liked, it may be seasoned with minced onion, which, however, should be cooked in the sauce for half an hour, and with powdered thyme added when the sauce is dished.

This sauce is far more wholesome than the drawn-butter usually served with fish. If served with simple baked fish, the drippings of the latter can be added with water to the tomato, or the sauce can be made with one half water and one half tomato, without any fishy flavor.

Small Fish, which are usually fried, because of the difficulty of cooking them in any other way, may be baked as follows: Stew and strain canned tomatoes, and add an equal measure of fine wheatmeal bread crumbs, or enough to make it keep its shape when placed on a dish. This may be salted and seasoned with minced onion and thyme, or not, according to taste. Then lay it half an inch deep on pie-plates, and in shapes to correspond with the size of the fish, and lay a fish well washed and cleaned on each, and bake in a moderate oven until tender. Serve with tomato sauce. This mixture of tomatoes and bread crumbs can be used as stuffing for larger baked fish.

Fish Balls.—Take the flesh of any of these carnivorous creatures, extract as much as possible of its little nutrition by saturating it with salt. It will remain some weeks or months in this condition without much change, amid exposure to sun and air and dirt and rough handling; what little delicacy it may have had being already gone. When wanted for use, mush thoroughly and soak in successive waters for several hours, taking out both salt and nutrition, and leaving little but the fishy flavor. Boil until tender in water sufficient to cover it. When cool, pick it to pieces and mix with two parts boiled and mashed potatoes, make into cakes and fry brown in fat enough to make them indigestible, and swallow with as little mastication as possible.

Stewed Rhubarb.—Wash and peel the rhubarb stems, and cut into pieces not far from three-fourths of an inch square. Place in a porcelain-lined saucepan and fill the rhubarb nearly full of cold water. Let it boil up once, and then drain off the water and set it aside. Then put in water

again enough to nearly fill the rhubarb and stew until the latter is tender. Sweeten to the taste, and serve warm or cold for breakfast, dinner or supper. Rhubarb stewed in this manner requires less sugar than if the first water were not turned off, and it will be quite tart enough to be agreeable.

Rhubarb Vinegar.—Drain off the first water from rhubarb when it has stewed five minutes; evaporate it to the requisite degree of sourness, and use it instead of vinegar for the table and for cooking. It is an agreeable acid, and in many cases it can be used instead of lemon. It is a natural acid, and therefore much more wholesome than vinegar formed by the decay of sweets or by any other chemical process. It may be evaporated (by gentle heat) to an intense degree of sourness, and kept in cans or in bottles for future use, and reduced with water when wanted.

Rhubarb and Dried Apples.—Look over, and, if necessary, wash good dried apples and put them into a porcelain-lined bottle, with about three parts cold water. Stew until they are soft enough to cut with a spoon. Then add as much cut rhubarb as there was dried apple. Stew until tender, mix intimately and sweeten to the taste. Put away for a day or two, and then serve for breakfast, dinner, or supper.

Cranberry Marmalade.—Sweet and insipid apples, and those which are past their prime and need to be cut up on account of decay, may be made very acceptable by stewing and mixing with stewed cranberries in the proportions, say of one part cranberries to two parts apple. Not quite so much sugar will be required as for the cranberries alone, unless the apples are sour. Strain through a colander, mix evenly, and serve at any meal.

Cocoanut Cracknels.—To one quart good oatmeal, medium grade (that usually known as Scotch oatmeal), add two spoonfuls of sugar and four of dessicated cocoanut, or six of freshly-grated cocoanut. Then add three and one half gills of boiling water, or what will barely wet it, so that it can be rolled out. Flour the board well and roll to about one-fifth of an inch thick, cut out with a cake cutter, stick a currant in the centre of each, and bake in a moderate oven about twenty minutes, or until they will break readily between the thumb and fingers. Watch them closely that they do not brown. Serve them as cake.

A CLEAN SKIN.—The New York Daily *Times* gives its readers, now and then, sensible thoughts, such as fill the pages of *THE SCIENCE OF HEALTH*. Take the following, for example: "No one thing aids so much in preserving the health perfect, as a thorough cleansing of the skin and keeping its pores open. And it is not only true of human beings, but also of animals. A favorite trotting-horse is carefully groomed, curried and washed; but the truly noble beast, the

one who makes our bread for us, or furnishes us meat, is neglected. A dirty skin is the first cause of more than half the ills flesh is heir to, and while a person may be, in the eyes of some, over-nice, it is hardly possible for him to be injuriously clean; nor is it possible to give any beast more currying and rubbing than it will like. At any rate, it is not possible that the best attended to will get any more.

"The advantages attendant upon the thorough currying and washing the hair and hide are additional beauty, a better digestion, hence greater ease of fattening and on less amount of food, and, directly and indirectly, an influence for good on the whole animal health, among which may be mentioned less liability to diarrhoea. Every stable, whether for cow or horse, should have its curry-comb and brush; to these some add the card; and there should be also a tub of water, or weak soap-suds, and a sponge. These should be used at least once in two days in warm weather, and any farmer who has never tried it, will be astonished at the marked improvement in his cattle if he will only adopt this plan as an experiment, even for a few days. Every one who has ever enjoyed the luxury of shampooing, by a skillful barber, after a long dusty ride, can have some idea of how improved a cow or ox will feel to have his or her skin well cleansed of dust after a long, hot summer day. The cow thus treated will yield more and better milk; the ox or work-horse, after his skin is cleansed, sleeps well and is rested; the next morning he goes forth to his work with an elastic step, and a consciousness in every movement of health and strength. The time and care taken in cleaning their skins is more than returned in a better product or increased labor. One might just as well expect a first-class crop from a field full of weeds, as good work from an animal never curried, or a large yield of milk from a cow whose skin was foul. The skin is the outlet of thousands of foul matters which Nature throws off from our bodies; it is itself constantly wearing away, and the dead particles require to be rubbed off rather than allowed to accumulate among the animal's hair, causing that covering to become unhealthy. Some farmers complain that their cattle are constantly rubbing down their posts, fences, and young trees. A little currying would stop all such troubles."

PLANTING PEAS DEEP.—Deep planting is not generally resorted to, under the impression that the seed will rot in the ground. This is a mistake. Peas covered six or eight inches deep, will produce twice as much as those covered but an inch; they will continue flowering longer, and the vines are more vigorous, and do not lie down, as is often the case when shallow plantings are made. We have tested this matter, and, therefore, know from experience, that if it is desired to get a large crop, the seed must be buried deep in the soil. A suitable piece of ground, which had been enriched the previous year, was deeply

plowed in the fall, and again in the spring, and put in fine tilth. One-half of the piece was marked out in drills, and the seed covered two inches deep. On the other half the plow was sunk beam deep, and the seed scattered at the bottom of the furrow. In this way one-half the piece was gone over, and afterwards merely leveled, leaving the seed at least eight inches below the surface. The peas that were plowed in, were a little longer in making their appearance, but they shot ahead of the others; the vines were thrifty and vigorous, and produced treble the quantity of those in the two-inch drills by their side. The seed used was of the same lot—the Champion of England variety; the soil, time of planting, and culture (except the manner of putting in), were precisely the same for both places. This experiment convinced us that peas flourish best in deep planting; and we repeatedly had our attention called to the fact, in observing different crops, and learning the manner of culture.—*Utica Herald*.

PLANTING TREES.—A great revolution has occurred in selecting fruit-trees for planting. Bushy plants are sought for. The shade which the side branches make is considered beneficial to the trees. As to the beneficial effects of continual digging about trees, which we oppose, all cultivators are not unanimous; but most of them now abandon it after some years; the difference of opinion being, how many years after planting shall this style of cultivation continue? With very low branched trees there is this advantage, that the plow or the spade cannot approach very near the trunk. Rich soil is, however, essential to good growth and good crops. This is the essence of good cultivation. In preparing for planting trees, the soil should be stirred at least two feet in depth. Of course, the trees should be planted in the holes only so deep as they stood in the ground before, rather higher, if anything, as the soil will settle. Good common soil may be filled in the holes if the natural soil is very bad; but anything applied as manure may be stirred in the surface soil after the trees are planted. Some object to making deep holes for planting trees, as, if the soil is stiff, they become wells, collecting water from surrounding soil and rotting the roots. It is best to underdrain such soils before planting. If this cannot be done, it is best to plant such ground in the spring. The water objection is a fatal one for fall planting in such ground.—*Gardener's Monthly*.

CURRENT AND GOOSEBERRY TREES.—Take sprouts of last year's growth, and cut out all the eyes or buds in the wood, leaving only two or three at the top; then push them about half the length of the cutting into mellow soil, where they will take root and run up a single stalk, forming a beautiful symmetrical tree. If you wish it higher, you have only to cut the eyes out again a second year. They have been known to attain six

feet in height. This places the fruit out of the way of fowl, and prevents the gooseberries from mildewing, which often happens when the fruit lies on or near the ground, and is shaded by a superabundance of leaves and sprouts. It changes an unsightly bush, which cumber and disfigures the garden, into an ornamental dwarf tree. The fruit is larger and ripens better, and will last on the bushes by growing in perfection until the fall. Many people suppose that the roots make out from the lower buds. It is not so; they start from beneath the bark and wood, at the place where it was cut from the parent root. The currant requires to be severely pruned, when the object is large and handsome berries. At the spring pruning, every new shoot should be headed back four or five eyes, and the old wood wholly cut out, or as much of it as possible, as it is on the young and vigorous wood that the best fruit is produced.—*Country Gentleman.*

A TIDY HOUSE.—As a general rule for living neatly and saving time, it is better to keep clean than make clean. If you are careful not to drop crumbs of bread and cake on the carpet, you will escape an untidy room, and the trouble of cleaning it. In working, if you will make a practice of putting all the ends of your thread into a division of the work-box made for the purpose, and never let one fall on the floor, the room will look very different at the end of a morning from what it does when not attended to. A house is kept far cleaner when all the members of the family are taught to wipe their feet thoroughly on coming from out-of-doors, than it can be where this is neglected. There are a thousand ways of keeping clean and saving labor and time, which it is well worth while to learn and practice.

OIL-CLOTH MADE FROM CARPET.—Nail the old Brussels carpet loosely to the floor, in a large attic or wood-house chamber not in use. Then paint it over with a thick coat of linseed oil and burnt umber. Let it dry in thoroughly; add a coat of good varnish. Let that dry for a week or two, and it can be scrubbed and washed with milk and water, like any oil-cloth. Paint it on the wrong side, and nail it down closely, for it need not be taken up in many years. As the varnish and paint wear off, renew them, and thus it will last four times as long as common oil-cloth.—*Daisy Hyebright.*

GRAFTING TREES.—If you have unproductive fruit-trees, or those which yield poor kinds of fruit, regraft them with better kinds at once. Graft a portion of the tree each year for three years, beginning with the highest centre branches. This will make the lower branches grow thrifty, and prepare them for grafting. In this way you will, in a very short time, change the unproductive, unprofitable tree, to a beautifully symmetrical one, bearing every year an improved and desirable quality of fruit. Even old trees, many

times, may be grafted profitably. In planting trees to fill up vacant spaces in your orchard, plant only the best kinds, use only the most thrifty stock you can obtain, and the result will then be satisfactory.

“LONDON SOCIETY” truthfully says: “It must not be imagined that good cooking requires increased expenditure. On the contrary, a really good cook is far more economical than a bad one. The cook who is perpetually wanting sauces to season her dishes, is not worth the salt she uses. The good cook, moreover, knows how to make the most of everything, while the bad cook is excessively wasteful of the best material.

A NASHVILLE man was awakened the other night by a pain in his stomach, and thinking the cholera was at hand, he clutched for a bottle of camphor which he kept on the table ready for instant use, and commenced applying it with vigorous rubbing to his abdomen. He experienced immediate relief, but was considerably surprised at not perceiving the strong scent of camphor. Suspecting that he might have made a mistake, he lighted the gas, and made an inspection, which resulted in the highly satisfactory discovery that instead of camphor he had used a bottle of ink.

A NEW ARTICLE OF FOOD.—Mr. Geo. G. Campbell, of Oswego, N.Y., has patented, as a new article of food, an improved mixture of rye and corn-meal, to be used in making rye and Indian bread.

It is claimed that the mixture of the two substances, in large quantities, may be made so as to obviate the necessity of scalding the corn-meal before adding the rye-flour, as is the usual custom. The rye-meal is first sifted through a screen of suitable fineness in order to remove the coarsest portions; and it is then combined with about an equal quantity of corn-meal. The mixture is then placed in suitable packages for market.

The inventor claims that, by sifting the rye-meal to such fineness that its granules will be permeated by the ferment uniformly with the corn-meal, the necessity of first scalding the meal is obviated, and that this necessity is all that has practically prevented the two meals from being mixed before they were put upon the market.

PAINTING FLOWER-STANDS.—It is quite customary to paint stands on which flower-pots are to stand, a bright green color; but we would never advise that color for the purpose, as the brilliancy of the paint has an injurious effect upon the colors of the flowers and leaves. When a flower-stand is to be painted, choose a dull color, if you wish the flowers to be the prominent feature. A rich brown, chocolate, oak, black walnut, or amber color would harmonize well, and the green of the plants and leaves will appear richer and more pleasing to the eye.—*How to Paint.*



MONTHLY,
\$2.00 year.]

NEW YORK, APRIL, 1874.

[SINGLE No
20 cents,

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

DEAD AT THE TOP.

GREAT men, like great trees, usually die at the top. Go among our brightest and ablest thinkers, writers, and brain-workers, and it will be found that, like the tallest trees of the forest, they give out first, not at the roots, in the trunk, or among the lower branches, but at the top. Men with large and active brains are kept incessantly at work, to do the thinking, planning, and head-work of a corporation; congregation, association, county, State, or Nation; and, ere long, with no other warning than a sleepless condition, a touch of indigestion, trouble with cold feet and a hot head, a fluttering of the heart, the vital machinery refuses longer to work, or to perform its accustomed duties. Such a man is just beginning to die at the top. Physicians are consulted, stimulants—instead of rest—are prescribed, and the process of decay is accelerated just in proportion to the vigor with which the so-called remedies are applied. Then, like Greeley, Chase, Agassiz, and a host of lesser lights who are cut down at middle age, these grand old landmarks are seen no more. The tallest forest trees, which send their graceful spires high up skyward, are more exposed to electric shock and sweeping winds than those of slower growth, and become bright and shining marks for the destroyer's darts.

Men and women who live slowly, temperately, and are regular in their habits—

who commit few or no excesses—may live healthfully and long, while the more active, energetic, pushing, aspiring, and, as they are generally considered, useful—such as are willing to work—and the more indolent are willing they should—will *wear* out, while others *rust* out. There is a happy medium between extremes which should be aimed at by all. A well-balanced temperament and a well-balanced mind are the best conditions for usefulness, for happiness, and for long life.

There are multitudes all around us who are dead or dying at the top. Go into our insane asylums, and observe a house full of madmen. They are dead or dying at the top. Read the heart-rending accounts of the many suicides. They first lost their reason through derangement, and then committed the irrational act. So of many murders and other crimes—kleptomania among them. They generally were the result of a derangement of the nervous system, the seat of which is in the brain.

Clergymen become unsound from over-study, close confinement, and running in a rut. They need diversion, change, rest, and recreation.

Professional men, judges, lawyers, teachers in universities, bankers, managers of corporations, etc., are liable, from incessant attention to one sort of absorbing work, to break down, and be laid away unfit for further usefulness,

while under sixty years of age. This is all wrong. No one is justified in committing suicide, or disabling himself from usefulness, either through love of gain, fame, or for any other consideration. Each is in duty bound so to live and labor that his life may be prolonged for the good of man, and for the glory of his God.

MANY MEN OF MANY MINDS.

THE GREAT TEMPERANCE MOVEMENT.

WERE men infallible, or capable of infallibility, they would come to the same conclusions. But, being finite, and 'not infinite, the best of them are erring mortals, and most of them are pretty bad, if not miserable sinners. We are led to this line of contemplation by noting the diverse views expressed by editors of the so-called religious journals, on the "Women's War on Whiskey." The mode pursued by the women is so unusual, and their prayers so potent, that it draws either faint praise from a portion of the religious press, or actual condemnation. To us, the lesson is a new proof that when men run in certain religious ruts for a length of time, they become stereotyped, as it were, and seem incapable of seeing how good may be done, or souls saved, except by the use of *their particular machine*. Were it not a waste of words, we would quote these religious—shall we call them snags, stuck in the mud, to retard the progress of temperance reform? One thinks it a perversion of the function of prayer, to fire it at rum-sellers. He offers no substitute by which woman may save husband, brother, or son from tippling and becoming drunkards. Another—a religious editor(?)—being without faith and with many fears, sees no promise for good in the movement. Another—a Jew, by the way—thinks these praying women are likely to put Tyndal's proposed prayer test on trial, and, so far, they have proved

the efficacy of prayer. Now this movement, though based on religious principles, is not in any sense sectarian. It seeks the co-operation of Gentile and Jew, Christian and Pagan, Baptist, Methodist, Presbyterian, Episcopalian, Catholic, Quaker, and all the rest, without the particular church machinery of either. Its weapons of warfare against Satan are prayers, hymns, and psalms. And all have a right to use these to the uttermost. Only bad men will throw obstacles in the way of the noble army of women martyrs who go forth to fight, and in the very fight bearing a cross. Aye, verily, it is a cross to many, to most, nay, to *all* sensitive women thus to engage in such work. But it is a greater cross to see husband, brother, and son brought down to death, hell, and a premature grave by the awful tempter, which meets them at every step—even at the holy altar of the Sacrament! Aye, the serpent tempter lies coiled in the cup which is used as the sacred emblem of the blood of Christ! Who has not seen poor, weak, human beings yield, even here, to his utter ruin and early death, by the smell and taste of the cup thus put to their lips?

So, again, in helpless infancy, the nursing babe, through advice of misguided physicians, is fed on that which is neither food nor drink in its proper sense, until the appetite is perverted, and thenceforward the tempter holds that person in chains all its days. We say, with these dangers before them, is it any wonder that women should form into praying bands, and go forth to battle with the demon who is destroying multitudes daily? Nay, the wonder is that the evil was permitted to exist so long.

Among other stirring utterances on this subject, Mr. Beecher rings out the following, from Plymouth Church, on Brooklyn Heights:

We see in nature two modes of action—one the gradual, steadfast motion; the other a kind of cli-

macteric motion. So we have nightly dews and gentle rain, and on the other hand mighty outbreaks, storms, both admirable; it would not be enough to have the gentle influences alone, and it certainly would not be desirable to have perpetual storm; and so the ordinary mode in nature is what may be called the quiet one, and the occasional one the tempestuous. There seems something like this in human society. Beyond all question the moderate is appointed to be the ordinary, and just as little question that at times comes natural upliftings to a higher scale. We have a remarkable instance now going on in the West, in the effort to suppress drinking. I don't know as history will show its parallel in the past, and I don't know that anything was ever more needed than the suppression of dram drinking, considering that there are other things worse in the specialty, but not so universal; and this dram drinking is the scourge of the household, and it comes with special weight on women, as being least able to take care of themselves. It is a kind of evil that has defied legislation; we have made laws restricting it, and we have lost in some respects and gained in others; and now, under the providence of God, there has arisen a moral cyclone, a perfect tempest of influence. It is one of the fruits of the agitation of the question of woman's rights. I never have troubled you much on this subject, although I am devoted first, middle, and last to the cause of raising woman, and she is coming on a line of equality. People say, What have you gained by it? This movement never could have taken place only for the agitation of this question.

I am not sure but we are going to have this whirlwind come here and change the creed of those who do not believe in women's speaking. So much moral power as belongs to a woman has a right to be heard, even in other places than the household. It is true the place for the candle is in the candlestick, and the place to shed its light is in the room; but if the window be open shall the light not go out to gladden some poor wayfarer? So woman's place first is in her family, but if she has no family is she to stand in everlasting waiting? Is she to be a gun forever loaded and never fired off? (Sensation.) The first sphere we admit to be the household, and when in the household her domestic relations require her to be public, has she not a right to be so? It is all Phariseism. It is conceded that a woman may say all she wants to, but she must not say it with her tongue; she may say what she will in the house, but she must not say it outside. I tell you if Dante had lived in our time, among the punishments he would have invented for the damned, he would have thought of a sensitive, pure, proud, high-strung nature, beguiled with the semblance of love into wedlock, see her idol turn into clay, and be obliged to spend her life with a fiend, a hog, week after week, month after month, year after year. I tell you there is no other hell needed. You can't imagine suffering greater than that. Have they no right to destroy the destroyer? This was not a plan thought of beforehand, it came by inspiration. There never was a thing more noble than this. Everybody ought to pray that there shall be great good done.

"The power of prayer" has been believed in, more or less, since the creation of man. Indeed, the disposition to pray is born with every well-organized human being. Away back in the dark ages, when men prayed to sun, moon, stars,

fire, water, wood, or stone, they were ignorant, superstitious, and low down in the scale of moral and intellectual development. But when Christ came, he taught men *how* to pray, what to say. And ever since, apostle, priest, pope, preacher, and layman have been urged to pay attention to daily devotions, and to "pray without ceasing"—which simply means a constant desire that God's will may "be done on earth as in heaven." Skeptics, seeing no results with their worldly eyes, gave it up; scientists ignored it, and prepared a "test" to prove its inefficacy. But a band of godly women, inspired with a holy unction, believed in it, practiced it, and God has answered their prayers and blessed their work. Some machine worshippers object. Being themselves spiritually dead, they throw crooked sticks in the way of these praying women. Those starched-up sticklers are not willing that anybody shall be saved except it be by *their* methods, or *their* "doxy." God is said to answer prayer, and we have been taught by highest authority how to pray. If wine-loving "white cravats," and bourbon-loving physicians continue to obstruct the way of this reform, they will be crushed by a moral force greater than any they ever invoked. There are but two sides to this question. One is *against* drunkenness, the other in its favor. Reader how do you stand towards the praying women. Let those who *dare*, array themselves on the side of the drunkard-makers!

COURAGE VS. TIMIDITY.

MANY a life is saved by courage; many a life is lost by timidity. A painful circumstance occurred in Astley's Menagerie, London, a few years ago, while we were lecturing there. An African lion had broken out of his cage during the night, and was met early in the morning by one of the attendants, who was un-

armed, in an open space. The lion and the man met, face to face, within ten feet of each other. The lion fixed his glaring eyes on the man, and the man riveted his eyes on the lion. Each held his ground for some minutes, when a keeper entered by a distant doorway, and saw with alarm the dangerous state of things. Instead of courageously calling for a rifle with which to dispatch the lion, or counselling the attendant to keep his eyes on the lion, he took counsel of his fears, and advised him to run. The poor attendant began to waver; the lion saw his advantage, and the instant the man started to run, the lion pounced on him, and crushed him as a cat would crush a bird or a mouse.

As a rule, man has more courage. Dr. Livingston was once struck down by a lion in Africa, and was for a time completely paralyzed, so that, though severely lacerated, he felt no pain. His companions soon came to his rescue, and with rifles shot the monster, and released the helpless captive. The Doctor attributed his escape from instant death to his own presence of mind, and in remaining perfectly still. Had he struggled to free himself, one stroke from the ponderous paw of the lion, or a single bite, would have finished him.

A house takes fire, and the timid inmates rush into the flames, or, through fear, refuse to move, and are destroyed. Cool courage, with common sense, would have discovered a way out, and have saved them.

Two ships collide at sea, and timid passengers jump overboard without stopping to learn what measures may have been, or were to be, adopted to rescue them.

Cholera, or yellow-fever, breaks out in a community, and timid persons become panic-stricken, and jump into their graves; more die through fright than from disease.

One receives a slight injury from accident, and, being a poor, weak, timid creature, succumbs, and almost without a struggle lies down to die. Another suffers a tenfold severer accident, with broken bones, or even with pierced vitals, and, having courage, will, and hope, recovers and "still lives."

Delicate women often exhibit courage and bravery in trying emergencies, which put to shame their great geesey consorts. As a general thing, however, women are scary, and become easy victims to burglars and other rogues. Resolution and courage would save many not only from the loss of property, but of life itself. The sight of a big black cat in a cellar is enough to throw half a dozen timid Bridgets into fits. And madam shudders at the sight of a postman. She faints when presented with a letter envelope in mourning, or if sealed with black wax. It is an evidence of great sensibility to be weak-nerved, "you know," and to be frightened at a shadow. A timid person is afraid to walk or drive past a cemetery at night. One with courage would as soon camp in a burying-ground as anywhere, and with no feeling of fear.

Foolish parents and wicked nurses frighten little children into paroxysms, or fits, "The Booggers under the bed will catch you." "There are bloody bones in the dark closet." "Hark! hear the rats running through the house between the walls. They will eat you up when you go to sleep." Then the "Fee-foh-fum, -I-smell-the-blood-of-an-Englishman, -and I'll-have-some," stories are calculated to excite fear in little ones, and make them cowards all their lives.

It is just as easy to encourage and educate children to be brave and courageous, as it is to make them timid.

Is it wise or healthful for our clergymen to preach scarey sermons to poor, timid women and children? Are the terrors of hell more potent to win souls to God, or

to obedience to his laws, than the prospects of Heaven? There are clergymen in whom fear is strong and hope is weak, who picture to the imagination of their hearers the most dreadful scenes possible, and seem to delight in the agonizing fears of their hearers. "The fear of the Lord may be the beginning of wisdom," but is it not better to interpret Scripture so as to make it consistent with the laws of nature and God? If we fear to violate His laws, and thereby obey them, good will come of it, and this is wise.

In the sick-room, the most hopeful sign one meets is courage on the part of the patient. On the contrary, if fear and timidity predominate, the chances are *against* the patient recovering.

But, how can one acquire courage who has it not in him? He may put down foolish fear, resign himself to the inevitable; trust in God, and submit himself wholly to the Divine will, saying, "Thy will be done."

One who quietly submits to the mandates of the law is not clubbed by the police, nor is his life placed in jeopardy. But if he resists, or attempts to escape, he will be stricken down, hand-cuffed, fettered, and severely treated. So of one who violates God's laws, and attempts by poisons, or other improper means, to escape the penalties thereof, he will be made worse, if not destroyed.

Are you ill? What is the cause? Have you over-worked? Have you eaten too much? Would you be well? Be patient; rest; regulate the temperature of your room; breathe pure air; abstain from food a day or two; sleep all you can; keep the skin clean by the use of water; put yourself into right relations to the laws of your being, and if there be any mend in you, the processes of cure will go on, and in good time you will be well. In any event, do not be frightened to death.

"All murderers, and nearly all suicides are miserable cowards."

AMERICAN OATMEAL.

We have all heard of Scotch oatmeal and Irish oatmeal; but whoever heard, until now, of American oatmeal? We have partaken of the foreign article in the old country, and enjoyed it; and old country people, coming to the United States with their "bairns," brought with them this wholesome, and to them indispensable, food. Finding no oatmeal in our markets, what other course was open to them than to import supplies? Quite a large trade has thus sprung up, and thousands of pounds have been brought here from Scotland and from Ireland. We have often inquired why American millers did not furnish the article. The answer was, that Scotch and Irish oats were different from those grown here, and that it required peculiar machinery—different from that used in grinding wheat and corn—to grind, separate, and make good oatmeal. Then why not procure seed and machinery from abroad? "Oh, it is so expensive and would not pay." But would not the demand increase with the supply? Would not everybody use it, were a good article available?

The problem has been solved. It appears that American oats—we raise *all* the varieties known—are as good for grinding and for food as any in the world; that there is no mystery about the machinery used in grinding the oat, or converting it into one of the best articles of human food in the shape of AMERICAN OATMEAL. Without hope of pecuniary reward, and with no intention of "axe-grinding," for a "consideration," we are glad to say, for the benefit of our readers, that since the completion of his new mill, Ferdinand Schumacher, of Akron, Ohio, is turning out, on a large scale, an article of *oatmeal*, the quality and manufacture of which would be a credit to any old country mill. By reference to his advertisement, it will be noticed that he manufactures almost everything else in that line, and if we can induce our read-

ers to live on these wholesome goods in place of the constipating "superfine flour bread," now in almost universal use, we shall do *them* a very great service. If the Ohio miller gets a benefit, it is no more than his useful enterprise entitles him to. We hope he will establish agencies in all the chief towns in America, and in Europe, where his American breadstuffs may be had. It seems *ridiculous* that America, a great agricultural country, should import *eatables* from those "tight little islands"—Britain and Ireland. But so it has been. Let it be so no more. We can raise here enough grain, wheat, fruits, wool, cotton, leather, and silk to feed and clothe the world. Then why spend our money away from home? Chinnamen bring their rice with them all the way from China, when we can raise as good an article here. Englishmen bring beef, mutton, and beer from England. Germans import Bologna, sausage and Rhine wines. Frenchmen bring us sardines, frogs, and foolish fashions; and our Scotch and Irish patriotic fellow-citizens bring us oatmeal and whisky. When we have a considerable population from Kamtschatka, we presume blubber oil will become an article of diet along our Northern borders.

Seriously, we shall, in the good time coming, be able to produce *all* the necessities of life in these United States, and to export to other countries instead of importing, as now. Meantime, let us, so far as may be possible, patronize "home productions," develop our own industries, import less; pay off our public debt, reduce taxation, and live as intelligent, temperate, religious, industrious, healthful, virtuous and prosperous people ought to live. Then hurrah for American oatmeal and for other healthful breadstuffs!

We ought, perhaps, in this connection, to call attention to other worthy dealers, and to state that Messrs. Bogle & Lyles,

of Park Place, New York, have done much to introduce oatmeal into many American families, and there can be no doubt their trade will continue to be extensive, as it has been enterprising and profitable.

The Messrs. Hecker, Brothers, also deserve much credit for their excellent Farina, Cracked Wheat, etc. So also, Messrs. Kelly & Eyre, and Messrs. F. E. Smith & Co., whose advertisements describe their productions—which see. These houses are among the best, and orders from them will be promptly filled.

PORK WORMS.

Trichina in Illinois.—A correspondent sends us a St. Louis paper, containing a letter from Chester, Ill., in which it is stated that trichina has been very prevalent of late among the hogs of the Kaskaskia Bottom—an area of some twelve thousand acres, in which it is estimated that not less than 10,000 to 15,000 hogs have been carried off by this disease within the past nine months. The names of twenty-five farmers are mentioned as having lost heavily—many of them upwards of 100 each; and, though, since winter fairly set in, the fatalities from this cause have been much reduced, it is feared that the malady will break out again in the spring in as formidable proportions as before.—*The Country Gentleman*.

And this is the sort of material extensively used for human food. Who knows what pork has living worms in it, and what has not? Is not all pork liable to this disease? Is pork, at best, fit to eat? Will it make pure, healthy blood, or strong bone or muscle? Will it make brain of fine quality? Does pork cause or aggravate bilious diseases, liver complaints, ague, fever, etc.? One thing is certain, namely: Those who eat pork are more or less afflicted with one or more of these ailments. But, to be "eaten up alive" by horrid pork worms is one of the worst deaths we can imagine. Why take the risk? Why eat pork?

CREATING SENTIMENT.

It is wonderful to behold how quickly a "little leaven leaveneth the whole lump." Or what a great fire a little

spark kindleth. "A friend of the Health Reform loaned a few numbers of the *SCIENCE OF HEALTH* to friends and neighbors who had never before heard of Hygiene, and they rejoice in a better knowledge of the laws of life and health. Another placed a Health Tract in the hands of a neighbor who had been bedrugged for years, and *now*, through the agency of a few kind words, and the reading of a single Health Tract, he is emancipated from the thralldom of doctors and drugs. Thus it is that "healthful sentiments" are created and disseminated.

We wish all readers of *SCIENCE OF HEALTH* would make it a point to enclose a Health Tract in every letter they write to friends; were this done, it would not be long before this Reform would drive out all the quacks, and put a stop to the swallowing of nasty poisonous com-

pounds, prescribed by a class of professionals who live and thrive on the diseases and deformities produced, in great measure, by their prescriptions. Then circulate the documents, and help to create Healthful Sentiments.

LECTURING ON HYGIENE IN KANSAS AND NEBRASKA.—During the past winter, Mrs. MARY W. BRICE, M.D., of Leavenworth, has been teaching the people how to live according to the laws of health. We have seen some of the results of her good work in large clubs of subscribers for *THE SCIENCE OF HEALTH*. From the small town of Hiawatha a club of twenty-five were sent. She reports the people as being "wide awake" to the cause of Health Reform, and heartily interested in its extension. They have had enough "patent medicine," drugs, bitters, cod-liver oil, and other "apothecary stuff."

We thank Mrs. Brice for the good seed she has sown,—is still sowing,—in those grand young States, and bespeak for her not only a kind reception, but *invitations* to visit all the chief cities and villages in these and neighboring States.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

MOLASSES OR REFINED SUGAR.—N. A. M. —"Which is the least hurtful to use as sweetening in cooking, molasses, brown or white sugar?

Molasses, sugar-cane, sorghum, or maple, may be so clarified as to be without much sediment, and is extensively used as sweetening, too much so, indeed, to be a consistent Hygienic diet. Pure white sugar is the least objectionable, and, indeed, the only sort admissible. The difference between white and brown sugar is, one is clean and the other is unclean.

WANTS TO BE AN ARTIST.—L. Miller inquires if a person, with a head measuring only twenty-one inches, can become an artist? And in reply, we would say yes.

BEST SYRINGE.—W. C. S. will find an illustrated description of the best syringe now in use, for all purposes, in our "Special List," which will be sent on receipt of stamp.

"WEAK BACK."—You will find your questions answered fully in an illustrated article on the backache, in the July number, 1872, which we can still supply at 20 cents per copy. The same number contains an article on "Chronic Catarrh, and the Remedy," for which we have had a large demand, and many letters warmly commending the sentiments there uttered.

WHAT IS THE MATTER?—A correspondent writes as follows: "I have been indiscreet, and am in a most miserable condition; am very nervous and whimsical; have lost much of my physical and mental power, my memory in particular being greatly impaired. I find great difficulty in concentrating my mind on any subject. Have no desire to mingle in society, or push my business with energy. And, at times, become so dejected as to be almost sunk in despair, and life seems a burden. But what I most fear, is an affection of the heart, which I sometimes think is incurable, and renders me more miserable and hopeless than I otherwise would be; it is a painful and irregular action of that organ, with an unnatural fullness of the chest on the left side (or over the heart), and I cannot lie down on the left side with comfort."

This is a "specimen letter," many of which reach this office, seeking advice, without giving the least clue as to the kind of "indiscretion" which has resulted so unfortunately; nor is there a word here as to habits, occupation, or modes of life. Nothing as to eating, drinking, smoking, chewing, drug-taking, inherited tendencies, and the like, all of which should be stated before advice can be given. Nor was there even a stamp sent with which to prepay postage on a return

letter! Our time is important, to us, though we give it cheerfully in the interest of our readers, but cannot well afford even three cents, with paper and ink, for the privilege of rendering *gratuitous service*.

IRON-MOULDER. — J. M. N. — "What food is best for an iron-moulder. I work ten hours per day; I am very healthy, but sometimes troubled with heart-burn, and when I sweat, and it begins to dry on me, my legs get quite itchy."

Our work on "Digestion and Dyspepsia" will give you the needed information.

IMPERFECT CIRCULATION. — W. S. W. — "Is there any remedy for a person that sweats so much in the face, and that at the same time has cold feet?"

Your circulation is unbalanced. You must attend to the general health.

FORMATION OF MILK. — J. W. C. — "As milk, like all other secretions, is a transformation of the elements of the blood, and not a separation, all of your questions are irrelevant. And the fact that a secretion is a *formation*, instead of a mere separation of elements, explains all the problems you suggest.

NEURALGIA, OR NERVE PAIN. — A. R. S. — "Apply hot fomentations, alternately, if agreeable, with cold water. Then, by a course of Hygienic living, you may hope to eradicate it. Drugs can do no good, but always make a bad matter worse.

PNEUMONIA. — W. H. A. — "The balance of the circulation should be so maintained, that nature can perform her own remedial work successfully. Bathe the surface freely with water of a temperature suited to the circumstances; the warmer the surface, the colder the water. The subject is discussed at length in the July number, 1872, which we can send for 20 cents.

WATER. — R. S. — "When people leave the country where hard water is the rule, are snow-water and rain-water good for drinking and cooking purposes? How long can it be kept, and be in a condition to use, and where should it be kept, out-doors or in?"

Melted snow is apt to contain ammonia. Rain-water is pure, and may be kept in a clean cistern, or in any vessel if air be excluded.

SICKNESS. — E. W. E. — "Since you clearly show that a large part of the sickness prevailing is brought about by bile or inactive liver, can one know he is bilious before he is so to an extent that sickens him? and if so, how?"

No. One must be sick when he has the evidence that sickness exists.

CARE OF THE HAIR. — S. C. S. — "I find the following in the *Country Gentleman* of a recent date, as a means of removing and preventing dandruff: 'Take of white precipitate, 15 to 20 grains; lard, 1 ounce; mix. Or take of ointment of nitrate

of mercury, 1 drachm; lard, 1 ounce; mix.' Is it safe for me to use this as an outward application, and if not, what shall I use to remove the dandruff from my child's head, otherwise she is very healthy and strong?"

You could hardly do a worse thing for your child than apply the above, or any similar nostrum. Keep the blood pure and the skin clean, and dandruff will soon cease to be troublesome.

BAKING POWDER. — J. M. B. — "Will you be so good as to tell us, the readers of *THE SCIENCE OF HEALTH*, whether the addition of half a teaspoonful of baking powder to a card of "Gem," is injurious to the stomach? If made of sweet milk instead of water and Graham, we have found them much more palatable, and if that small amount of baking powder is added they are uniformly very light. We do not, however, wish to use it if injurious."

All additions to flour and meal, in the process of bread-making, except air and water, are injurious.

WHISKEY AND LINSEED OIL. — H. A. B. — "Equal parts of whiskey and linseed oil is a popular remedy in this section for any kind of cough. Please answer through *THE SCIENCE OF HEALTH*, and tell us about its effect on the human system."

As whiskey is a poison, the above mixture cannot be otherwise than injurious.

TAPE-WORMS AND PILES. — "I have been a constant reader of your valuable journal, *THE SCIENCE OF HEALTH*, for some time, and have endeavored to live according to its directions. I see you are opposed to medicine being used in any disease, but there is one thing I have never seen spoken of, and that is the tape-worm. I have every reason to believe that I am the possessor of a tape-worm, and I would like to know if there is any way to expel them from the system. Also, what would you recommend for the cure of the piles; can they be cured. And do you think the constant use of purgatives makes them worse? By answering these questions you will greatly oblige one of your subscribers."

A strictly Hygienic dietary is death to worms of all kinds, and a sure cure for piles. Purgatives always aggravate piles. See our work on "Digestion and Dyspepsia."

MANIKINS. — J. D. D., M.D. — "The best French manikins, made of *papier maché*, are worth from \$750 to \$1,500 in gold, life-size, complete; with each and all their parts, so that they can be separated. They can only be furnished by importing to order, and would require six weeks' time.

CONSTIPATION. — "Physic, simply makes a bad matter worse. It is something like bleeding a patient. The cause must be discovered and removed. Immediate relief may be obtained by the use of the right sort of a syringe. Then, the bowels may be regulated by a proper diet. The best syringe for all purposes, is described in our *SPECIAL LIST*, sent on receipt of stamps.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

WOMAN'S DRESS.—Though the following is a private note, we give it to the reader for its spiciness. The writer says:

"I inclose in this a hastily dashed off 'squib,' in reply to the clergyman who inquires whether there is such a thing yet devised or invented as a Hygienic dress for women? Unfortunately, the garments 'devised' by our Hygienic friends, are quite in excess of the wearers. 'Conversions' are what we need—'big revivals,' which shall make the gospel of Hygiene popular among the masses. But this must come by 'preaching'—perhaps our good brother will not forget *this part* of the business. All that we can do, is to attend to the practice. Yours truly, —."

DRESS FOR WOMEN.—*Editor Science of Health:*—"To the clergyman who inquires through your columns, 'whether there has yet been devised any physiological and Hygienic dress for women,' I would beg leave to say, that there is a dress called the 'Hygienic' or 'Reform Dress,' which is worn by a number of health reformers, including some physicians, which, so far as its physiological character is concerned, is every way an improvement on the ordinary dress worn by women. This dress is so constructed that it covers the body *evenly*, or nearly so, from head to foot. The inventor of it recognized the following principles, in physiology:

"*First*, That a *well-balanced circulation* is essential to good health.

"*Second*, That inasmuch as *heat* causes blood to flow to a given part, and *vice versa*; therefore, it follows that to promote and maintain this balance of circulation, the body must be *equally warmed* throughout. Hence, a dress, to be thoroughly hygienic, must protect all parts equally well.

"Another feature in the reform dress is, that it allows freedom of action to all the limbs and muscles of the body. The skirt is short enough not to interfere materially with the motion of the lower extremities. And still another peculiarity in the dress is, its freedom from ligatures, even the garter; nothing about it impedes the circulation of the blood. It is likewise adjusted in such a manner that the weight of the clothing is evenly diffused over the several parts of the body.

"The Reform Dress is the invention of Ellen B. Harman, M.D. It consists of an underskirt, which may be called, drawers, waist, and sleeves, all in one; and of an outer garment, which, also, follows pretty nearly the contour of the body, except that it has a loose, flowing skirt, descending from the waist to a little below the knee. This dress is in no way identical with the Bloomer costume—which is nothing more than the ordinary dress shortened, and worn with trowsers, plain or Turkish. The Reform or Hygienic dress is without underskirt, overskirt, or anything of the sort. It is a simple frock and trowsers, with the undersuit before mentioned.

"The chief objection to this dress, or rather to the adoption of it, is, that like many other good things, it is rather distasteful to this ungodly generation. Two hundred years hence, it might answer; but at present, it is *not* 'the rage.' And though the 'arguments' formerly advanced against it, in the shape of *missiles* hurled at the person of the wearer, do not now appear, the vociferous demonstrations of 'Young America' on the street corners, are such as would make the most zealous dress reformer pause and consider. SPECTATOR."

\$1,200 FOR A STANDARD TEMPERANCE

PRIZE ESSAY.—Here is a chance for some of our Hygienic writers to win a prize. The temperance men are in earnest, and will leave no stone unturned in bringing the truth home to the people. Read the following:

At the late National Temperance Convention, the subject of a Standard Temperance Work was presented by Job H. Jackson, a member of the Society of Friends, of Pennsylvania. Mr. Jackson stated that he had secured \$1,200 to aid its publication, and asked the co-operation of the Convention, which heartily indorsed "the former utterances of the National Temperance Society concerning the imperative demands for such a work," and appointed the undersigned a Committee to secure it.

The Committee have decided to divide the work into three parts, and to offer Two Prizes, for each of the Three Essays, to be open to all writers who choose to compete therefor, in this and other countries:

1. The Scientific; embracing the Chemical, Physiological, and Medical aspects.
2. The Historical, Statistical, Economical, and Political.
3. The Social, Educational, and Religious.

The fund at present at command, through the worthy efforts of Mr. Jackson, enables the Committee to announce Two Prizes for Part First, the Scientific, viz.: For the Best Essay, adjudged satisfactory, the sum of \$500 will be paid; for the Second Best, the sum of \$300 will be paid. Accepted manuscripts to become the property of the National Temperance Society.

Among the topics which the Committee suggest that the Scientific Essay should include, are:

1. What is Alcohol? Is it a Poison? Is it Food?
2. What becomes of Alcohol when taken into the Human System?
3. What is the Physiological Action of Alcohol on the Living Organism? Does it Increase or Impair Force? What Proofs can be given of either Action?
4. What are the Consequences of the Use of Alcohol on the Integrity of the System and the Duration of Life?
5. What Effects has its Use on Progeny?
6. Is Alcohol a Medicine? If so, in what Diseases and Form is it Beneficial?

The offers for the Scientific Essay will remain open to all competitors till January 1, 1876. Manuscripts (with the names and addresses of the writers by whom they are forwarded for competition inclosed in separate, sealed envelopes, not to be opened till after the award has been made), should be forwarded to A. M. Powell, 58 Reade Street, New York.

The Essay should be of such a character that, while adapted in style to interest a non-professional reader, it will meet the demands of scholarly criticism. The treatise that best covers the ground in the least compass is desirable. It should not extend beyond 300 pages of print, medium size octavo.

The Committee have also under consideration the Second and Third Parts of the General Work, and hope, at an early day, to be able to announce the Prize offers for them. To this end, and that the complete Standard Work may be obtained as speedily as possible, they appeal earnestly to the friends of Temperance to prompt-

ly supply them with funds. The \$1,200 already secured by Mr. Jackson is an auspicious beginning. The sum of \$1,200, in addition, will enable the Committee to offer such inducements as will call into the service thoroughly competent writers. Contributions may be sent to Job H. Jackson (Treasurer), West Grove, Chester Co., Pa.; to J. N. Stearns, Publishing Agent of the National Temperance Society, 58 Reade St., New York; or to any member of the Committee. A. M. Powell, Jas. Black, R. C. Pitman, A. A. Miner, Neal Dow, Committee, 58 Reade St., New York.

HE LIKES IT.—A student, writing from Western New York, says: "THE SCIENCE OF HEALTH is a power for good in teaching the people how to live. It was through its pages I was persuaded to examine Hygiene, which has not been without its benefiting influences. May it long live and prosper."

WANTED.—A HYGIENIC HOTEL IN THE WEST.—"Editor Science of Health,—Dear Sir: I have been reading your SCIENCE OF HEALTH, in which I see a Hygienic Hotel advertised at New York. And the idea strikes me that just such a hotel would make a fortune in St. Louis, Mo.; even a good boarding-house which could furnish the kind of food for dyspeptics, could not fail of having all the boarders it could accommodate. A Hygienic institute I think would certainly prosper there. I reside in St. Louis, and find it impossible to get the kind of diet to suit my case at any hotel or boarding-house there. "W. H. Y. K."

[A good suggestion. What is wanted in all our cities, villages, and at our railway stations, is good Hygienic hotels. Indeed, such should be substituted for the miserable whiskey and tobacco concerns which now disgrace the country.]

HOW ONE MAY HAVE AN ORANGE FARM.—A California correspondent who has traveled much, observed much, and experienced much in that land of vegetable and mineral wealth, sends us the following sketch of the essentials, incidents and advantages of orange culture. Although the plan was intended for our own consideration, we give it to our readers, some of whom may entertain seriously the sweet enterprise. Assuming the proposed operator to have \$2,000 at command, he will:

Buy 20 acres of land, \$15 per acre	\$300
Dig a flowing well.....	200
A stock horse, \$100; harness, \$15; wagon, \$125.....	240
A cow, \$80; hens, \$5; bees, \$5	90
Flow, 1 scythe, 2 trowels, harrow, rake, forks, shovels.....	80
House, 16x20, with a lean-to shed.....	150
Hay, 1 ton, \$30; feed, \$20; stove, \$25; sundries, \$25	100
Seeds, chiefly Lima beans.....	50
Grape cuttings, 1,000, \$10; clover seed, \$5 ..	15
Provisions for 3 months, 3 persons.....	100
Wages, 2 months, for 1 hand.....	60
200 5-years old orange and lemon-trees	200
3 each of apple, pear, plum, peach, and cherry trees	10
25 each of raspberry, blackberry, currant, and strawberry vines.....	10
1,000 eucalyptus, and willow trees, to set for wood and fence.....	50
100 English walnuts	50
Total.....	\$1,685

It would be well to buy 2 barrels of choice fruit to start a nursery, by helping to pack the fruit at the orchard.

WORK TO DO.

1. See that the land-title is clear. 2. Put in an acre of clover in February, in 10 weeks the growth will make feed. 3. Have the well bored; hire it—all done. 4. Prepare the land, 7 acres for vines and trees—4 days' work. 5. Cross-plow, harrow, and strike off divisions. 6. Plow in, and mark cuttings of raisin-grapes. 7. Select the trees—2 days' work. 8. Set them—a week's work. 9. Select and set out the walnut and fruit trees. 10. Attend to the fencing. 11. Plant an acre of roots, carrots, beets, and garden. 12. Pack oranges, and get your pay in fruit. 13. Exchange work, to pay for use of a horse and harness, in deep plowing. 14. Lay in year's supply of wood, \$50. 15. Prepare 6 acres for beans. 16. Plant corn between all the young trees, to shelter from wind and sun in summer, and frost in winter. 17. Plant beans.

Eleven acres, to be cultivated once in eleven days. After May 1st to be watered once a week, and the clover once a month.

The writer says: "I have irrigated 10 acres a day. A sulky cultivator and plow would make it comparatively light labor."

PRODUCTS FIRST YEAR.

Eggs and chickens sold.....	\$35
Butter, say 2 pounds a week, 40 weeks.....	80
Honey, 100 pounds	15
25 bushels of corn, say	15
Potatoes, a ton.....	40
Beans, 3,000 hills to acre, at 5 cents a hill, or 1 pound a hill, \$150x6	900
Total	\$1,075

With which you may pay the cost of hand and board, to help harvest and clean up ground and shelter young trees, in November and December; 2 months' work, \$60; winter supplies, \$100; purchase 200 more 5-year trees, \$200, etc., then applying the proceeds in labor and improvements, *equally* on each of 10 acres.

The reserve fund of \$315, you will have to fall back on in case of a visit of the army worm or locust, and so saving the corn and bean crop cut off either the first or second year.

The writer says: "After the third year I would expect to have my own trees vigorous and strong, 10 feet high for the balance of the 10 acres, and as many more to sell."

After the third year the live fences will furnish cuttings, close to the stump—all the firewood needed each year for cooking purposes. The third year the 2 acres of grapes would yield 4 pounds dried, to each stake, there being 520 to the acre, at 40 cents the stake, or \$100 to the acre over all possible cost of help to cure, pack and box, losses and shipping. In the sixth year these 2 acres may be set with trees, and when they cover the ground cut off the grape-vines.

FINAL RESULTS.

At the beginning of the sixth year there are 10 acres of oranges, with 3 acres beginning to bear fruit; 2 acres in full bearing of grapes, and 5 acres with trees, respectively seven and six years old. The whole richly worth, at present prices, \$500 per acre.

The present profits of an orchard of 7½ acres of fifteen-year trees, orange and lemon, will reach \$30,000. At 1 cent each for the fruit crop, they will pay the best of any possible crop.

Here is a method for earning one's bread, besides books and leisure, with no great expenditure of the sweat of one's brow; saying nothing of the healthful part of the business, a good appetite, sweet sleep, and freedom from excitement.

Our Puzzle Column.

A SHAKESPEAREAN ENIGMA.—38 LETTERS.

The whole is a quotation from Shakespeare, with the name of the play from which it is selected.

17, 29, 11, 37, 25, 3, is the person to whom the sentence was addressed.

19, 8, 30, 26, 29, "whispers the o'er-fraught heart."

One of the noblemen in the play wished 7, 16, 33, 23, 14, 38, might attend the king.

19, 4, 13, 17, 17, 30, 19, 16, 20, 12, 21, 18, 26, "should wait on appetite!"

23, 33, 11, 8, 32, 33, 34, 35, 27, 31, 15, a character who was "troubled by thick-coming fancies."

5, 36, 33, 6, 23, 24, 9, "the hero laughed to scorn."

20, 1, 33, 32, 6, a golden charm hung about the neck, and put on with 38, 4, 23, 8, 6, 3, 33, 8, 16, 3, 20.

The son of the English general paid 2, 21, 9, 20, 34, 25, 8, 16.

23, 10, 26, 16, 24, a cheek so called.

The hero of the play termed life 33, 35, 3, 21, 36, 29, 34, 33, 24, 17, 22, 27. ISABELL.

A BOUQUET.

One flower will be found in each line.

The flower that blushing stood up one day,

By the side of a noted writer,

The king of beasts, but a fop withal,

And the blow of a fisted fighter.

The fastener liked by single men,

A long-handled brush all may use,

The blossom older than all the rest,

And the one which at death we lose. BETH.

A WORD PUZZLE.

My whole composed of nine letters is not 7, 1, 3, 2, but resembles a 2, 8, 5, very much, unless disturbed. He has a long, strong 7, 6, 4, 3. He does not care a 9, 6, 5 for such "small deer" as a 9, 6, 7, but will not scruple to 1, 3, 2, 8, 7, the whole of a 5, 8, 1, 7, as his share of a repeat. He is particularly partial to pig, human or otherwise. M. B.

OUR SPELLING CLASS.

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CARRIE.

ANSWERS TO PUZZLES IN THE FEB. NO.

Classical Enigma.—"What is the love of restless, roving man? A vagrant stream that dallies, for a time, with each flower upon its banks; then passes on and leaves them all in tears." IRVING.

JOHN W. WELLS, FRANCIS M. BUCK, MARQUIS TYRRELL, ELLEN BROWN, Zig-Zag, E. M. T., MARIA COULTER.

Cross-word Enigma.—Water-Cure.

JOHN W. WELLS, FRANCIS M. BUCK, ELLEN BROWN, E. M. T., MONTGOMERY, WALTER CHASE.

Transformations.—Bear, bean, dean. Coat, colt.

JOHN W. WELLS, ELLEN BROWN, Zig-Zag, WALTER CHASE, FANNY B., E. TREAT, ANNIE MOORE, LIEBIE BAILEY.

Word Square.—A C U T E

C O L O R E

U L T R A S

T O R U S

E R A S E

JOHN W. WELLS, FRANCIS M. BUCK, Zig-Zag, E. M. T., FANNY B., E. TREAT, LIEBIE BAILEY

Hygienic Seasoning.

AN OLD TEMPERANCE STORY ABOUT THE RAT AND THE CAT.

A VERY sleek and comely rat
Once fell into a distiller's vat,
And thus addressed a passing cat:
"Assist me out of this, I pray,
Oh, gentle puss, nor turn away!"
Her feline nature made her stay.
"Yes, I will help you out," said she,
"If first, my friend, you'll promise me
My willing dinner then to be."
The rat was sinking. Quick as thought
He gave the promise and was caught,
And safely from the vat was brought.
But fumes from out the vat
Went up the nose of tabby cat,
Who sneezed, and sneezed again. At that
The rat took heart, and legs, and fled,
And reached a point safe overhead.
Then 'tween her sneezes Tabby said:
"For shame! (cachew!) you said (cachew!)
You'd be my din (cachew!) ner. You
Have lied to me." (Cachew mew!)
"True," said the rat, "'tis even so,
But I've excuse sufficient, though—
I was in liquor, then, you know!"
Those rats or men in liquor—they
Cannot be trusted any way.

[That was a more fortunate escape than usually attends those "in liquor;" as a rule, they come to grief.

HARD TIMES.—An old lady was complaining a few days since, in the market, of the excessively high price of provisions. "It is not the meat only that is so enormously dear," said she, "but I cannot obtain flour for a pudding for less than double the usual price, and they do not make the eggs half so large as they used to be!"

A LITTLE girl hearing her mother observe to another lady that she was going into half-mourning, inquired whether any of her relations were half dead.

THE very latest thing in the advertising line is a lady who, through the newspapers, seeks for employment as an "ornamental guest." She will assist at dinner or evening parties—by her grace, her wit and beauty, contribute to the entertainment of guests, and she will do everything in the highest style of art—only she demands that a handsome compensation be made therefor.

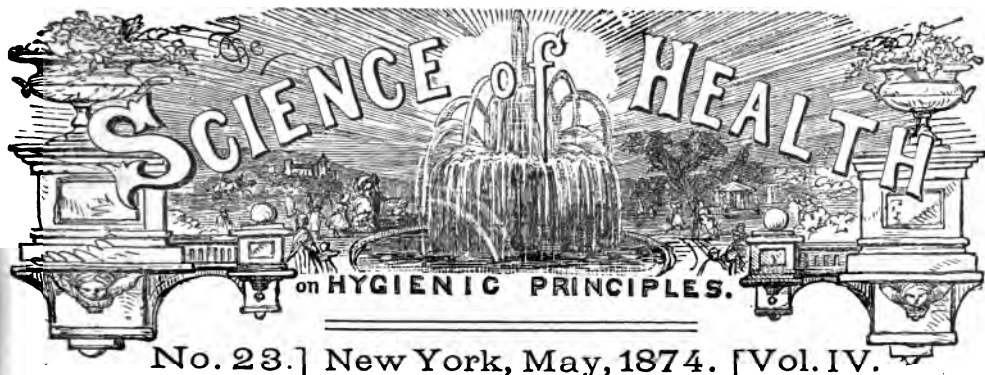
If your mother's mother is my mother's aunt, what relation would your great-grandfather's nephew be to my elder brother's son-in-law?

"I LIVE by my pen," said a slovenly poet, wishing to impress a young lady. "You look as if you lived by one," was the reply.

"My wife," said a critic, "is the most even tempered person in the world—she's always mad."

A MINISTER walked six miles to marry a couple lately. He said he had a sort of fee-bill like feeling. The groom saw it.

THE crossed paths—Allopath and Homeopath.



NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

PREDISPOSING CAUSES OF DISEASE—TOBACCO.

BY ERNEST WELLMAN, M. D.

How to Get Well and Keep Well.—No. 5.

TOBACCO.—Next on the list is tobacco. Indeed, it is scarcely second to alcohol as a disease-producing agent. True, it has never caused the amount of suffering that alcohol has. It does not steal away a man's senses, rob him of his intellect, lash his passions into fury, and demonize him as does its elder brother. It rather stupefies his intellect, deadens his moral sense, degrades his finer sensibilities, and lowers him in the scale of being. While alcohol goads men to the commission of terrible crimes, tobacco rather operates to the omission of great duties. The one, when freely used, brutalizes, while the other simply degrades.

A prominent feature in the use of tobacco is, that it paves the way for the use of alcohol. Ninety-five per cent. of the users of alcoholic liquors among men are tobacco-users. Indeed, it is difficult to find a victim of alcohol who is not also a victim of tobacco. The narcotic so stupefies and weakens that it causes instinctive cravings for the stimulant that excites to action and apparently strengthens. The immediate effects of these two seem to counteract each other, though the ultimate results are essentially similar.

Tobacco-using is a vile habit, and is incompatible with health. It is a dirty

habit, and cleanliness is an important rule of health. It taints the atmosphere, befouls the breath, blackens the teeth, pollutes the mouth, besmears the lips, bespatters the floor, soils the clothing, poisons the blood, and renders every man who uses it offensive, in greater or less degree, to those who do not use it.

Tobacco-using weakens a man's self-respect. Not only has he an indefinable feeling—a half-conscious sense that he is a transgressor; but he is constantly having paraded before him intimations of his guilt.

NO SMOKING HERE!

reminds him that he is the victim of a filthy habit. He is not tolerated among his fellows. He must have a place to himself, away from more cleanly folks, where he can smoke and spit, and spit and smoke, and enjoy this sensuous indulgence, which claims priority over things natural, noble, and pure. He is a slave to the vile appetite. He feels he cannot forego its demands. Without tobacco, neither food, drink, clothing, sleep, agreeable society, generous impulses, or noble desires are at all appreciated.

Tobacco blunts the senses. The sense of taste is demoralized, smell is in many cases almost destroyed, touch is rendered abnormal, hearing uncertain, and it is now positively affirmed that blindness

has in many cases occurred from atrophy of the optic nerve, because of its use.

Tobacco-using may be the cause of almost any nervous disease known. M. Decaisne, a French physician, says, that out of eighty-three inveterate tobacco-users, twenty-three suffered from narcotism of the heart (temporary suspension of its beats), twenty-one of whom were promptly cured by its disuse. The writer has met with many such cases.

Paralysis, as the result of tobacco-using, is of frequent occurrence. D. M., a merchant of wealth and influence in one of our interior cities, became afflicted four years ago with loss of speech and partial paralysis of the right side. He was a vigorous man, in the prime of life (40), but gradually the paralytic difficulty increased until he was unable to attend to business. He is able to walk about, attend to his own wants, comprehend what is said to him; but he can speak but two words, Yes and No. He is interested in the news of the day, but he cannot read more than a paragraph at a time. He utterly fails in the use of either spoken or written language. He came to me for treatment. The intermittent pulse suggested the difficulty—he was an inveterate smoker and chewer of tobacco. I put him into the sun-bath for fifteen minutes, at the end of which time a strong, sickening odor of tobacco filled the entire room.

Tobacco was his bane, and I assured him that if he would surrender that, there was every probability that he could be cured. But he had been taught that the cause of his difficulty was a clot of blood in the substance of the brain; and back of that immediate cause he could not go. The clot probably existed, but there was every reason to hope that it might be absorbed if the *cause of the clot* could be removed. Tobacco-using had weakened the brain and its blood-vessels, and business cares had taxed him, until, under great pressure, these blood-vessels gave way, and allowed the blood to ooze out into the brain. He failed to comprehend the real cause of his difficulty, and so remains an invalid. He was unwilling

to surrender his idol in an experiment in which he had no faith. It appeared never to enter into his thoughts that the same cause that occasioned the clot in the first place, would surely reproduce it if it were removed. And in this respect he reasoned just as the millions do every day. Sickness visits them, and they seek here, there, and elsewhere for a cure; but never seem to imagine it possible that the cause that originally produced the disease, would reproduce it with vastly greater ease, even if they got cured. The whole plan of medical treatment, as we have it to-day, corresponds precisely to an attempt to dip the ocean dry, while the rills and rivers continue to pour forth unceasingly their contents.

This gentleman's case strongly suggests softening of the brain, a disease always connected with the use of nervines in some shape. Tobacco is a powerful agent in its production.

"Trembling, which is one of the usual symptoms of acute, is also a common result of chronic nicotism. A very distinguished Parisian physician had hands which shook so much he could not write. Whenever he remained without tobacco for a length of time these tremblings disappeared. Another case, mentioned by Blatin, is noteworthy. A man, forty-five, consulted him respecting violent and numerous attacks of vertigo. Whenever he felt one of these approaching, he was obliged to lie down, wherever he might be, in order to avoid falling. In the country, when he had plenty of exercise, they were less frequent than when in town, where his occupation was sedentary. Cessation from tobacco quickly restored him. A physician of fifty-two was afflicted with the same disagreeable symptoms, and was also cured by abstinence. The habit had become so strong that he could not resist at times the temptation to slight indulgence; but finding that these returns to tobacco were immediately followed by his old painful attacks he renounced it forever."—*Popular Science Monthly*.

The *Hartford Courant* says: "Recently, at the Polytechnic School in Paris, one of the professors, on inquiry, found that in each grade in the school, the students who did not smoke outranked those who did smoke, and the scholarship of the smokers deteriorated as the smoking continued. On account of several trustworthy reports of such a nature, the Minister of Public Instruction in France issued a circular to the directors of colleges and schools, forbidding tobacco to students, as injurious to physical and intellectual development."

"Tobacco and insanity are closely connected. It is stated upon the best authority, that of those who become insane from the supposed use of spirituous liquors, eighty-seven per cent. also use tobacco. Two Belgian physicians, Drs. Grishaw and Hagan, have, after careful collation of facts, stated the following as the proportion which the consumption of tobacco bears to insanity in Belgium. From 1818 to 1830, the consumption of tobacco was twenty million kilogrammes, and ten thousand insane persons annually.

Tobacco.	Insane.
In 1832—80,000,000 kilogrammes.....	15,000
In 1852—112,000,000 " 	22,000
In 1864—180,000,000 " 	44,000

—*Harper's Weekly.*

Thus we might quote facts and statistics to an unlimited extent, proving clearly the effects of tobacco, but *cui bono?* Enough has been said to satisfy those who desire earnestly and conscientiously to arrive at the truth.

Yet, the inevitable objection will be

made. These evil effects of tobacco are the results of its immoderate use, and not of a proper use of it. We acknowledge the fact. The proper use of tobacco would never injure any human being any more than the proper use of anything else. But what is its proper use? To befoul a man's breath, poison his blood, turn his mouth into a chimney, his jaws and glands into a manufactory of spittoon filth? No; but to poison bed-bugs, destroy sheep-ticks, and the like. Why should any man ever chew or smoke tobacco? It is not food, nor drink; neither is it clothing; nor can it ever serve any useful purpose in the human organism. It is simply a vile, nasty, slavish indulgence; a sop to Satan, a bid to evil genii, and without one single word to be said in extenuation of the crime of using, manufacturing, or selling it. Until that word is said, we are done.

ONE MOTHER'S CHARACTER-MOULDING.

BY ELIZABETH DUDLEY.

IN an article on the mother's influence over the mental and moral character of her unborn child (published in the March number of this journal), I promised to give the psychological experience of one mother whose three younger children present a marked contrast to the three older ones. I then gave the prominent characteristics of the six children, and shall not now have space to recapitulate, but those who would readily understand this article should first read that.

The mother had been a poor girl of good family; traditions of lost grandeur had been repeated to her from childhood, and the minute observances of fashionable etiquette carefully taught her, by a mother who constantly regretted that her lovely young daughter could not "hold up her head in the sphere where she belonged!" The family were, therefore, greatly elated when a wealthy gentleman of high social position fell in love with the beautiful girl, and married her.

His family were disposed to be patronizing, and as the young bride had been

warned not to permit this, she cultivated a haughty and repellant manner. Her husband took so much pride and pleasure in her beauty that she became very vain; and since he lavished elegant clothing and splendid jewelry upon her, and then took her to display them into fashionable society, she was for a time quite intoxicated by the change in her circumstances, and felt as if she were living in a fairy land.

The thought did not once occur to her that she was moulding indelible impressions upon the innocent creature who was forming its life and character from hers, and that the sacred work in which she was engaged should be carried on in the peaceful, thoughtful seclusion of home-life, or in the company of noble-minded men and women. On the contrary, she was determined, to use her own expression, "To go into gay society every day, until she was compelled to withdraw for a while." And during her enforced retirement she so constantly sighed to resume again the show and excitement of fashionable life, that she could take

no pleasure in any other thoughts. Even when her beautiful little daughter was born, mother-love was unable to supplant her morbid longings; and it was not until after the birth of a second infant, that home-life appeared to her in the least degree attractive.

The second was a boy, her eldest son, and both parents were greatly pleased to receive "an heir." Before his birth the mother had been more kindly treated by her husband's family, and, in consequence, had relinquished her haughty manner; and as her health was delicate after his birth, she remained more at home, and enjoyed domestic life more than she before believed would ever be possible. At this time, too, her own mother came to live with her, who took such satisfaction in her daughter's house and unexceptionable surroundings, and so enjoyed the refinements of her family circle, that the young wife began to comprehend what a home is, and what it may be made, and grew to be quite domestic before the birth of her third child, also a son.

This boy was not yet two years old when the husband's mother, a widow, died. The wife did not love her mother-in-law, nor grieve because of her death; but the customs of society demanded that she should wear mourning and seclude herself from the gay world for two years; and this devotee of fashion, of course, obeyed the mandate. But social life of some kind seemed indispensable to her, and she now cultivated the friendship of a scientific family who lived near them. The gentleman was an ardent student, always at home with his books or in his laboratory. His wife, almost as great an enthusiast as himself, pitied her beautiful neighbor when she saw her yawning over a novel, and invited her to witness some of her own experiments in chemistry.

From this time the young wife and mother was filled with an eager desire for knowledge. Hitherto, she had taken for granted the assertion that men may engage in abstruse studies and thoroughly inform themselves on any sub-

ject, while women must be content with light literature and a superficial smattering of common-school lore. But she now saw a woman younger than herself, intelligent and beautiful, attractive as any of her sex, devoted to the ardent pursuit of actual, practical knowledge, and already reputed for her learning.

Our young mother began to read, to study; when a subject was too hard for her untaught mind, she went to her neighbor with questions. She sought out students, invited them to share the hospitalities of her house, and eagerly sought information from them. She attended lectures on scientific studies, she collected a cabinet of minerals and shells, and learned to classify and describe each specimen. Her affections also received a new impetus from the activity of her brain, and since both her mother and her husband were cold and undemonstrative themselves, and had always chilled any warmth of manner in her, she lavished a wealth of tender but repressed feeling on her new friends.

In spirit she revered and loved them to an extent which they never imagined even; as this ardor of feeling showed itself only in sincere, unquestioning faith in their teachings, and a marked preference for their society. Her mother and her husband often ridiculed her new pursuits, but she did not care for this; her mind had awakened, and her aspiring aims and lofty thoughts kept her serene amid petty vexations. Nor did they criticize as they would had she been in an ordinary state of health. Believing that her mood would presently change, they were tolerant now, not wishing to annoy her.

So her second daughter was born—a healthy, happy, loving child, who early exhibited an intense desire for knowledge, and would not be denied. She took to books naturally, learned to read without effort, and with scarcely any teaching, and gradually developed into the earnest, intellectual woman described in my first paper on this subject—a perfect contrast to her sister and older brothers, and a more enthusiastic student than the younger ones.

Soon after her birth the scientific neighbors went to live in another city, and books were now the only means by which the mother of these children could get information. She read, indeed, almost constantly throughout the rest of her life, but lacked the stimulus of her friends' enthusiasm, and so did not impress her two boys with that intense desire for knowledge which she had impressed upon their sister.

Discords often arose in this family because of their intrinsic differences; but, fortunately, the mother lived until all were grown and settled in life, and her influence kept peace between them; especially since the fashionable and haughty sister and brothers presently learned that the younger ones were more respected in the world, and more sought after than themselves; while the younger sister and brothers, filled with the humility of true wisdom, which knows itself to be still so unlearned, never exhibited airs of superiority towards any one.

Observation of such families convinces me that the full extent of a mother's prenatal influence, is not at all understood by physiologists and psychologists of the present day. The information I seek for seems impossible to be obtained; after reading the latest books and the most valuable works on this subject, I am still only on the threshold of it. At the door of the temple I stand, but without a key. Having had but one child, I dare not arrange statistics from data so unsupported. Will not other mothers study, investigate, and observe upon this subject? For what I have written has not been set down with the intention of teaching any one, but only of calling attention to the subject.

Can women find a theme more exalted, a work more noble, than that of intelligent motherhood? Some of my friends who read this, will think me bold for expressing my thoughts so freely—alas, how much I weakly withhold through fear of that accusation! But *think*, my friends, how many children are daily born into this world of ours, who were sinned against from the beginning! How

many women go carelessly on without one thought of what they are doing. Marrying from any and every motive, and then rebelling at the natural consequence, and so giving birth to contradictory, rebellious children. Or they endeavor, without success, to destroy the embryo, and so bring a future murderer among us. Or, in a stupid, unreasoning way, they consider it meritorious to increase and multiply, without inquiring who they are multiplying and what they are increasing. Is it well for any mother to bring more votaries of fashion and vanity and pride, into a society already so hampered in onward progress by fashion and her selfish train? How can our human world ever grow better but by every generation being born better than the last?

What is it to be well-born? Is it not to be true, and strong, and earnest, and loving; to possess perfect health and beauty of body and soul; to receive all one's faculties in perfection, with ability to cultivate them infinitely; to have not the slightest impulse towards degradation in the smallest particular; to enjoy an ardent impulse towards improvement in every respect; in a sentence, to be born "in the image of God?" Is a devotee of fashionable life born in that image?

FRUIT AND HEALTH.—Dr. Hunt said at a recent meeting of the Warsaw Horticultural Society, that "an absence of fruits implied doctors' bills." We have urged for many years the importance of a regular supply of ripe fruit to prevent disease, and insisted that the best medicine-chest which an emigrating family could carry to a newly settled country would be a box of early bearing fruit trees, currant, gooseberry and raspberry bushes, and strawberry plants. We knew a family who moved West, and took with them a very large supply of dried fruit, which lasted them throughout the first summer. None of them were sick, although disease prevailed all about them that year; but the next year, with more comforts and less privations, but with no fruit, they suffered much from sickness. Other western residents have told us that so long as they could have ripe fruit, they have been free from all disease resulting from malaria.—*Southern Farmer*.

On a tombstone at Stenday, Prussia, is inscribed the epitaph: "She died of a corset."

THE PHILOSOPHY OF FOWLER AND WELLS.

BY R. T. TRALL, M.D.

IN the *Health Reformer* for March, an editorial article on "Health and Religion" is introduced with the following paragraph :

"There has been in years past a strong tendency with some leading health reformers to skepticism. And the fact that not a few in the ranks, especially those of the Fowler and Wells philosophy, are settled unbelievers, has created a prejudice with many conscientious believers, and has closed their minds to any investigation of the subject. And this class, which by no means is a small one, suppose there are many statements in the Sacred Scriptures directly opposed to the restrictions of the hygienic system."

Having in my library all the works of the former firm of Fowler & Wells, and also all of the works of S. R. Wells, written since the dissolution of the said firm twelve years ago, and having read each and all of them, carefully and critically, from title-page to "finis," I was not a little astounded by these strange utterances of the *Reformer*. They are not only untrue in statement, but grossly unjust in all of their implications. And they must have a most harsh and revolting sound to those who are familiar with the fact that, to the publishers above named the world is more indebted for its hygienic literature than to all other publishers in existence. "Believers," too, are more indebted to their publications than to all other sources for the faith that is in them on the subject of health reform. Indeed, it may fairly be questioned whether the *Health Reformer*, the Battle Creek Health Institute, and the health books issued therefrom, would have had any existence had it not been for the publications of Fowler & Wells—especially Wells. And further, the Christian world is more indebted to them than to all other sources for showing the harmony between the teachings of the Bible and the doctrines of the hygienic system.

And now I affirm that there is not, in any one of the works of the above-named authors, as published by the house in New York, nor in any of their writings, to

be found in the PHRENOLOGICAL JOURNAL, the SCIENCE OF HEALTH, nor in that grand old pioneer of the gospel of health, the WATER-CURE JOURNAL, a single sentence or syllable calculated to discredit either Christianity or the Bible. True, they have not, in their books and periodicals, advocated Second Adventism, nor Methodism, nor Presbyterianism, nor denominationalism of any kind; but they have commended what is better than either, and equivalent to all, Christianity itself.

What can the editor of the *Reformer* mean by his unmanly insinuation? Can he expect to profit by arraying sectarian prejudice against a competing journal and a rival publishing house? I cannot for a moment entertain so uncharitable a supposition. Having worked for the *Health Reformer* for many years, and through it for the good cause to which it professes to be devoted, with no discord or uncharitableness because of differences in the interpretation of certain texts of Scripture, and with the apparent as well as professed recognition of the self-hood of conscience, and the inalienable right of private judgment on all subjects, I could hardly credit the evidence of my eyes when I first read the *Reformer* for March. Nor can I now believe it admits of any worse explanation than that of "Some mistake somewhere."

My personal acquaintance with Elder James White, whose name stands at the editorial head of the *Reformer*, also precludes the idea that he could ever pen or sanction so flagrant an injustice.

But, of this imputed "philosophy of Fowler and Wells"—what is it? During thirty years of constant interchange of words and works, I have never heard of it nor suspected it. And I have yet to learn that they are, or pretend to be, the authors or discoverers of any philosophy of any kind.

They profess to publish "good books for all," but this is only a "trade-mark," not a philosophy. And some of these books the *Reformer* advertises and sells.

And if it would always credit the works of Fowler and Wells, when it makes selections from them, instead of publishing them as original, it would do as S. R. Wells always does when he publishes articles from the works of the Battle Creek folks.

Fowler and Wells also profess to publish "the best thoughts of the best writers" on a variety of subjects which are interesting the leading minds of the world, embracing all forms of religion and all phases of science. But this profession is only an adage. It is not a philosophy.

But the *Reformer* charges that the philosophy of Fowler and Wells makes "settled unbelievers." How can this be if they haven't any philosophy? Before putting on record and sending broadcast over the land so damaging an accusation, the editor should have given specifications, with an opportunity on the part of the defendant to be heard. What is the "unbelief" which the philosophy of Fowler and Wells has "settled," or the faith which their philosophy has unsettled? I challenge the universal world to find, in any of the current publications of the New York house, a shadow of evidence to justify these disingenuous implications, or either one of them.

It is unfortunate, both for the cause of Health Reform and for that of Christianity, that each cannot be presented and advocated on its own merits. There are earnest and honest health reformers of all shades of religious and political opinions, and, perhaps, of all grades of moral and intellectual character. Its ranks embrace clergymen of all the orthodox denominations, and others whose orthodoxy may be questionable. Its ranks also embrace laymen of almost every phase of religious creed, and some who have no religious creed at all. Who is to sit in judgment on their religious convictions, so long as their words and works are on the side of health reform? Shall we go back to the dark ages, re-enact the Inquisition, and introduce a sectarian creed into a health journal, demand acquiescence or "*Anathema maranatha*?"

Had not all of us better remember that this is the *nineteenth*, not the *ninth* century?

Let all religious people, and people of no religion, if any such there be, meet together and work together

"As a band of brothers,"

on the Health Reform platform, leaving questions of orthodoxy, heresy, creed, and dogma, which a hundred religious sects have a hundred opinions concerning, to the religious periodicals, the churches, and the doctors of divinity, instead of hurling them as bones of contention and elements of dissension into the yet feeble and ill-organized army of health reformers.

"For forms of faith let wrangling bigots fight,
His can't be wrong whose life is in the right."

FOR "THE SCIENCE OF HEALTH."
NEURALGIA.

What darts with quick electric pain,
Like lightning flash, then flies again,
Rasping one's nerves with might and main?
NEURALGIA.

What keeps the vital powers at strife,
Muscle and nerve with torture rife,
Till one is well nigh tired of life?
NEURALGIA.

O pain of pains! O ache of aches!
That every nerve with anguish shakes,
And life one bitter Bochim makes.
NEURALGIA.

What woes upon thy presence hang!
Thy stinging, tearing, rasping pang,
Is sharper than a serpent's fang.
NEURALGIA.

Great king of aches without a truce!
Thou hydra-headed pain let loose!
Of all earth's ills the extracted juice!
NEURALGIA.

Pandora's box of woes compressed,
And every pain a viper's nest,
Writhing and stinging without rest.
NEURALGIA.

In vain we try thy pain to touch,
With poultice, liniments and "such,"
Drafts, pills and powders, O how much!
NEURALGIA.

In vain we follow written rules,
And drugs of every name, (O fools!)
Of all the Pathies and the schools.
NEURALGIA.

O Protean nerve-ache! Tic-douloureux!
A *dolorous* pain thou art, 'tis true,
Defying drugs and doctors too.
NEURALGIA.

What *shall* I call thee? Words all fail
To coin a name that will avail,
For all thy wealth of wo and wail.
NEURALGIA.

In vain my pen were dipped in gall,
With all the furies at my call,
Thou can'st be felt, and that is all.
[ONE WHO KNOWS.] NEURALGIA.

POPULAR PHYSIOLOGY.—ILLUSTRATED.

CHAPTER VII.—*Concluded.*

FIG. 108 shows the principal muscles of the abdomen and of the inguinal canal.

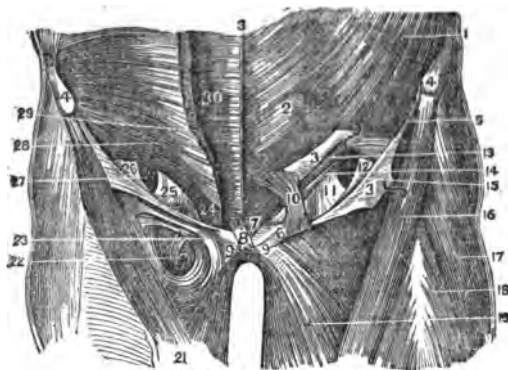


FIG. 108.—ABDOMINAL MUSCLES AND INGUINAL CANAL.

1. External oblique muscle. 2. Its aponeurosis. 3. Its tendon slit up and turned back to show the canal.
4. Anterior superior spinous process. 5. Poupart's ligament. 6. External column of external ring. 7. Internal column of external ring. 8. Intercrossing of the tendons of each side. 9. Body of the pubes.
10. Upper boundary of the external abdominal ring—the line points to the ring. 11, 12. Fascia transversalis. 13. Fibres of internal oblique turned up. 14. Fibres of transversalis muscle. 15. Internal ring enlarged for demonstration. 16. Sartorius. 17. Fascia lata femoris. 18. Rectus femoris. 19. Adductor longus. 21. Fascia lata of the opposite thigh. 22. Point where the saphena vein enters the femoral. 23. Fascia lata as applied to the vessels. 24. Insertion of transversalis muscle. 25, 26. Fascia transversalis. 27. Poupart's ligament turned off from the internal muscles. 28. Transversalis abdominis. 29. Internal oblique. 30. Rectus abdominis.

Some of the above muscles constitute the walls of the abdominal cavity, and hence their health and vigor is essential to a proper action of the abdominal viscera within. They are also intimately connected with the respiratory function, hence their vigorous action is indispensable to free and normal breathing. At the external and internal abdominal rings (6, 7, 10, 15), are seen the places where the bowel protrudes in cases of inguinal hernia, suggesting the proper place for applying trusses or pressure.

The principal muscles of the hip are shown in Fig. 109.

The gluteal muscles are abductors of the thigh, when acting from the pelvis as

the fixed point; but when the thigh is fixed, they steady and help support the pelvis on the head of the thigh bone, as



FIG. 109.—DEEP GLUTEAL MUSCLES.

1. External surface of the ilium. 2. Posterior surface of the sacrum. 3. Posterior sacro-iliac ligaments. 4. Tuberosity of the ischium. 5. Great or posterior sacro-sciatic ligament. 6. Anterior or lesser sacro-sciatic ligament. 7. Trochanter major. 8. Gluteus minimus. 9. Piriformis. 10. Gemellus superior. 11. Obturator internus, passing out of the lesser sacro-sciatic foramen. 12. Gemellus inferior. 13. Quadratus femoris. 14. Adductor magnus, its upper part. 15. Vastus externus. 16. Biceps. 17. Gracilis. 18. Semitendinosus.

in standing; they also assist in moving the leg forward in walking. The small gluteal muscle (minimus) rotates the limb slightly inward; the medius and maximus rotate it outward. The other muscles of the gluteal group are termed *external rotators*, their office being to rotate the limb outwardly, by which the knee and foot are exerted.

Fig. 110 shows the principal muscles of the thigh.

The tensor vaginæ femoris stretches the fascia lata, rendering it tense, and slightly inverting the limb; the sartorius bends the leg upon the thigh, and the thigh upon the pelvis, carrying the leg across that of the opposite side—the tailor's sitting position; when fixed below it assists the extensors of the leg in sup-

porting the trunk. The four remaining muscles extend the leg upon the thigh. By their attachment to the patella, which

their fixed point is from the tibia they steady the thigh upon the leg; and the rectus, by its attachment to the pelvis,



Fig. 110.

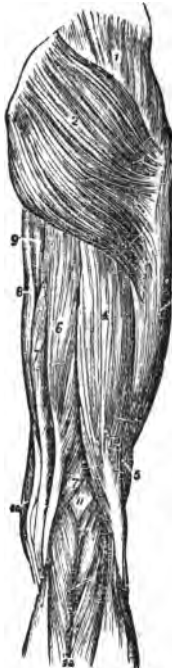


Fig. 111.



Fig. 112.

acts as a fulcrum, they are advantageously disposed for great power. When

serves to balance the trunk upon the lower extremity.

FIG. 110.—ANTERIOR FEMORAL MUSCLES.

1. Crest of the ilium. 2. Its anterior superior spinous process. 3. Gluteus medius. 4. Tensor vagina femoris; its insertion into the fascia lata is seen inferiorly. 5. Sartorius. 6. Rectus. 7. Vastus externus. 8. Vastus internus. 9. Patella. 10. Iliacus internus. 11. Psoas magnus. 12. Pectineus. 13. Adductor longus. 14. Part of the adductor magnus. 15. Gracilis.

FIG. 111.—POSTERIOR FEMORAL MUSCLES.

1. Gluteus medius. 2. Gluteus maximus. 3. Vastus externus covered in by fascia lata. 4. Long head of the biceps. 5. Its short head. 6. Semi-tendinosus. 7. Semi-membranosus. 8. Gracilis. 9. Part of the inner border of the adductor magnus. 10. Edge of the sartorius. 11. The popliteal space. 12. Gastrocnemius; its two heads.

FIG. 112.—SUPERFICIAL TIBIAL MUSCLES.

1. Biceps, forming the outer hamstring. 2. The tendons, the inner hamstring. 3. Popliteal space. 4. Gastrocnemius. 5, 5. Soleus. 6. Tendo Achillis. 7. Posterior tuberosity of the os calcis. 8. Tendons of the peroneus longus and brevis, passing behind the outer ankle. 9. Tendons of the tibialis posticus and flexor longus digitorum, passing into the foot behind the ankle.

The muscles on the posterior aspect of the thigh are shown in Fig. 111.

The first two are direct flexors, bending the foot upon the leg; acting with the tibialis posticus, they direct the foot inward, and with the peroneus longus and brevis, outward. They help to maintain the flatness of the foot during progression. The extensor longus digitorum and extensor proprius pollicis are direct extensors of the toes; they also assist the flexion of the entire foot upon the leg. When acting from below they increase the firmness of the ankle joint.

Fig. 112 is a representation of the principal muscles of the leg.

The muscles of the foot are arranged in layers, and are called *dorsal* or *plantar*, according to their situation above or below. The first layer of the muscles of the sole of the foot is shown in Fig. 113.

All the muscles of the foot act upon the toes, the action and nature and situation of each muscle being expressed by its name. The movements of the toes

carpal bones, and the great strength and number of the ligaments and tendons of the leg, feet, and toes, are admirably adapted for combining power of endur-



FIG. 113.



FIG. 114.



FIG. 115.



FIG. 116.

are flexion, extension, adduction, and abduction. The great toe, like the thumb, is provided with special muscles for independent action. The lumbricales are as-

stance with facility of motion; the toes generally have four flexors, two extensors, four adductors, and four abductors; while the great toe, in addition, has two distinct flexors, two extensors, one adductor, and one abductor.

FIG. 113.—FIRST LAYER PLANTAR MUSCLES.

1. Os calcia.
2. Posterior part of the plantar fascia divided transversely.
3. Abductor pollicis.
4. Abductor minimi digiti.
5. Flexor brevis digitorum.
6. Tendon of the flexor longus pollicis.
- 7, 7. Lumbricales.

FIG. 114.—PLANTAR MUSCLES.

1. Divided edge of the plantar fascia.
2. Musculus accessorius.
3. Tendon of the flexor longus digitorum.
4. Tendon of the flexor longus pollicis.
5. Flexor brevis pollicis.
6. Adductor pollicis.
7. Flexor brevis minimi digiti.
8. Transversus pedis.
9. Dorsal and plantar interossei.
10. Convex ridge formed by the tendon of the peroneus longus in its oblique course across the foot.

FIG. 115.—DEEP PLANTAR MUSCLES.

1. Tendon of the flexor longus pollicis.
2. Tendon of the flexor communis digitorum pedis.
3. Flexor accessorius.
- 4, 4. Lumbricales.
5. Flexor brevis digitorum.
6. Flexor brevis pollicis pedis.
7. Flexor brevis minimi digiti pedis.

FIG. 116.—PLANTAR INTEROSSEI.

1. Abductor tertii.
2. Abductor quarti.
3. Interossei minimi digiti.

sistants to the long flexor; and the transversus pedis is placed across the foot for the purpose of drawing the toes together.

The firm articulations of all the meta-

HEAT.—In relation to the subject of how high a temperature men can endure and work in, a writer in the *British Journal of Science* notes the following interesting cases: "During the reheating of furnaces in an iron-works in England, the men worked when the thermometer, placed so as not to be influenced by the radiations of heat from the open doors, marked 120°. In the Bessemer pits 140° was reached, and yet the men continued a kind of labor requiring great muscular effort. In some of the operations of glass-making the ordinary summer working temperature is considerably over 100°; and the radiant heat to which workmen are subjected far exceeds 212°. In a Turkish bath the shampooers continue four or five hours at a time in a moist atmosphere at temperatures ranging from 105° to 110°. A case is mentioned of a person in the same establishment working for half an hour in a heat of 185°. In enamel factories men work daily in a heat of over 300°. On the Red Sea steamers the temperature of the stoke hole is 145°, and some men will labor there for half an hour without a drop of perspiration, while others are carried out fainting. These examples of continuous work at 110°, 140°, and 145°, corresponds to depths in mines of 3,650, 5,450, and 5,750 feet. The author thinks, therefore, that the limit of 4,000 feet, fixed by the English commissioners as the extreme workable depths of mines, is too small, and he considers 8,000 feet a safe boundary."

DISEASE AND ITS TREATMENT.—No. 15.

BY ROBERT WALTER, M.D.

The Modus Operandi of Disease. Poisons.

OUR subject may be better illustrated by examining it under the following classification, which may be made to include all the diseases to which human beings are subject:

First. Acute diseases caused by medicines, or other poisons ;

Second. Acute diseases resulting from causes less apparent ; and

Third. Chronic diseases, and diseases of debility.

We must of necessity be brief in our discussion of this subject ; and, hence, shall employ but a few illustrations from each class as representatives of the whole.

First. Acute diseases caused by medicines, and other poisons.

The opponent of our ideas of *modus operandi* will be sure to call our attention to what he is pleased to call the action of caustic. Here is, by all odds, the most plausible argument that can be brought to bear against our theory. To the senses it appears perfectly plain that the caustic "eats" or "burns" the tissue whenever applied. And, unlike other medicines, it never fails. The effect always follows the application. But in this, as in many other respects, the action is quite different from that of other medicines. It is, indeed, chemical action. Physicians class caustics as chemical agents, while most other medicines are classed as vital agents. A chemical union does take place between the elements of the tissues and the elements of the caustic ; but before this can happen the tissues must die. The elements of the tissue cannot yield themselves up to chemical union and yet remain living tissue. Chemical action is the formation of a third substance from the union of two others ; but this union can never take place between living and dead matter. It is only the chemical atoms of *unvitalized* matter that unite. The flesh of an animal does not decay while it is

alive ; but as soon as death occurs chemical union between various elements commences, and putridity follows. Hence, it cannot be chemical action that kills the tissue, because the tissue must be dead before the chemical action commences. There must be a destructive action previous to the chemical one ; and careful examination will show this to be action of the tissues themselves. In their struggles to protect themselves, they act so violently as to become disorganized ; while the tissues beneath immediately throw out lymph to form a blister in an endeavor to protect themselves from further injury.

But the question recurs, Why does this defensive struggle of the vital powers against the caustic take place if the caustic does not act? We answer, that it is because of the chemical affinity (not action) existing between the elements of the caustic and the elements of the tissue. Between these two there is an attempted chemical union which the vital powers struggle, even to the death, to prevent. It is this chemical affinity which makes nearly all medicines or poisons so inimical to vitality. When the poison is introduced into the system there is a chemical affinity between it and the elements of the organization tending toward chemical union, which would be death, and hence every instinct of self-preservation is aroused to prevent a union. And this union (which is chemical action) is prevented as long as life exists in the part. If the affinity is too powerful for the vital powers to resist, of course disorganization and death follows as a consequence.

This affinity is not action ; but if it were, medical men would be entirely welcome to all the comfort they might get from it. It is a tendency or desire to act chemically, but the acting can only be consummated by previous destruction and death.

This action of caustic illustrates the

action of all the other corrosive poisons. Take the acids—nitric, muriatic, sulphuric, acetic, prussic or hydrocyanic, etc. All these have powerful chemical affinities for the elements of the tissues, and hence, when introduced into the system, the vital instincts make energetic and often violent efforts to prevent chemical union, and to cast out the intruders. The action is self-preservative, defensive, and of course, though the organism is toned up, stimulated, and apparently strengthened by their presence, it is the strength of desperate warfare, the stimulation of a struggle for existence.

The *modus operandi* of strychnine, arsenic, alcohol, quinine, mercury, tartar emetic, and all the other deadly poisons, is not essentially different from the other caustic irritants. They are causes of exalted but destructive action in the system whenever introduced into it. If employed in sufficiently large quantities, death immediately follows; but if taken in medicinal doses, vital war against them commences, and is continued either until the enemy is expelled, or the vital resources are exhausted and death ensues.

These medicines are the standards of the medical profession whenever strength is to be developed. Nitric acid (called also aqua-fortis) is tonic; so are muriatic and sulphuric; so are strychnine and arsenic and quinine. They are also stimulant and sedative, etc. These medicines do undoubtedly produce the effects ascribed to them, and the reader who has followed us thus far will clearly perceive why they produce them. They do it in the same way that a fight against an assassin, or a run for life from highwaymen, or the excitement of carnage on the battlefield nerves to herculean efforts the threatened victims. Put life and death before any man, and make the former dependent upon extraordinary exertions, and the power that he will develop will be marvelous. The stimulation of alcohol is precisely similar to the frenzy of a madman. The strength that *either* develops is often great, indeed.

In this connection it may be well to remark that the different chemical elements of different poisons may have much to do with their peculiar effects. The elements of one poison may have a much greater affinity for the elements of nerve fibre than the elements of another poison, and hence the nerves will be the chief organs of defense; so of the muscles, etc. This would explain spasms, fits, etc., which it would be profitless for us here to discuss.

Other classes of medicines, viz., diuretics, diaphoretics, chologogues, emetics, purgatives, etc., we have already shown, cause their peculiar effects by virtue of their being obstructions of various kinds, which are to be cast out by such organs as can do so. For instance, the kidneys are capable of detecting the presence of the diuretic poison, and so proceed to cast it out; the liver detects and casts out chologogues; bowels, purgatives, etc.

Two or three grains of arsenic will cause violent death, while ten times the quantity will not. What makes the difference? Does the result depend upon the action of the arsenic, or upon the action of the vital organism? Surely, if the destructive force resided in the arsenic, twenty grains would kill more surely and with greater rapidity than two grains. But it does not. If two grains be introduced into the stomach, its presence as a violent poison will not be detected, and so it will be treated as other substances, passed on or absorbed, until after getting into the blood it is carried to the more sensitive parts, and violent spasmodic efforts will result, ending in death. The larger quantity, however, will be detected by the stomach, which will immediately proceed to vomit it up, and so save the patient's life.

A very small quantity of prussic acid, when swallowed, will cause almost instant death; a few drops of the poisonous principle of tobacco will do the same thing; strychnine will cause spasms in a very few minutes, etc., etc. These facts and numerous others make this subject of the *modus operandi* of poisons a very

interesting but intricate one. How these substances can act on the vital structures in so short a time, especially on the central ganglia, which they have not reached, is entirely unexplainable. It is possible for us to conceive, no doubt, that poisons might act on the structures with which they come in contact, and kill them by so doing, but how they can act on what they never touch is entirely incomprehensible. The prussic acid does not reach the brain, nor the nicotine always reach the spinal cord; and yet these organs and all the others die almost instantly. The only explanation is that the vital structures, in a panic, kill themselves. When the presence of these poisons is detected, the fact is telegraphed to all parts of the system, and every vital organ acts in energetic and violent defense, destroying itself by its own unreasoning exertions.

Such destructive action is in entire agreement with the self-preserved instincts of human life. We have already shown that organic instincts are always right in intention, but often wrong in action. They have neither reason nor free-will. Within their own province they are as unerring as the bird in building her nest, or the fish in swimming; but outside of their own domain they may know as little as a fish does of flying, or a bird does of the ocean. Nothing can be more punctilious than the lungs with regard to breathing air; but try to breathe water or gas, and the little glottis or gate will shut up every avenue, and the man will strangle to death—not

killed by water in the lungs, or poisonous gas in the breath, but strangled by his own instincts. Nothing is more certain than the healthy stomach with regard to food, but on the introduction of a poison-emetic, it has been known to work its way up through the diaphragm into the lungs, and so kill the man. The same principle holds good throughout the whole domain of organic life. A horse slips his foot into a hole in a bridge. Every instinct of self-preservation is aroused to get it out, and he pulls and twists until he twists it off. The instinct was right, but the action destructive.

We claim, therefore, for organic life, instinctive rectitude, that is, rectitude of intention; but we do not claim for it rectitude of action *except when in perfect health*. To do so would be to make it infallible, and there is much less infallibility in this world than some suppose.

But while we do not claim for the human organism infallibility, we do nevertheless claim that there is a vast amount of intelligence displayed by the vital instincts in nearly all diseases. Excepting the violent and sometimes panic-stricken action consequent on the sudden introduction of poisons into the system, there will be found a wonderful degree of method in the operations of life, even when suffering under the most serious embarrassments. Diseased action will almost always be found to be necessary action—action that should not be stopped, but only regulated. It is preservative action, though sometimes it is to be modified or controlled.

A WORD ABOUT BABIES.

From Hearth and Home.

BY A PRACTICAL MOTHER.

THAT wise little work, "Combe on the Management of Infancy,"* deserves a very close and careful perusal by all intrusted with the care of infants.

Notwithstanding the line upon line and precept upon precept which we have had regarding the management of baby

world, I have been struck of late with the prevailing mismanagement of babies, and in their behalf have been led to "offer a few remarks," quoting informally from Dr. Combe, and likewise from my own experience in following his advice.

In the first place, young infants, in all but the warmest weather, should wear a flannel garment covering the entire body.

[* Published at the Office of the SCIENCE OF HEALTH, by S. R. Wells. Price, \$1.50.]

Five or six years ago, some thoughtful person, probably Mrs. Kate Hunnibee, published directions for dressing a child during the first month or two of its life, which directions were given me by a friend. I have dressed three children in this manner, and have found the rule an unfailling blessing.

A long cotton warp shaker-flannel gown, with a cotton one of the same size and shape, so that the two can be put on as one, serves all the purposes of dress, except of course, the flannel band, which I would also make of cotton warp shaker-flannel; and this for two reasons: first, it does not shrink much in washing or change its color; and second, it is not so rough to the tender skin. I believe many a child has cried from the disagreeable sensation caused by all-wool flannel. Every one who has ever put on flannels in the fall can well understand the torture. My belief in the annoyance caused by the flannel is not wholly theoretical, for I have several times put an all-wool flannel band on my baby, and had no rest from its fretting until I had either replaced it with a cotton warp flannel, or placed a *linen* one beneath it. As, however, the child needs some friction and every possible means of keeping it warm, I think the shaker flannel with cotton warp preferable to anything else.

This dress, consisting of so few pieces, can be put on or off in a few minutes, and the worry caused both mother and child by the long process of elaborate dressing of flannel band, linen shirt, pinning blanket, two skirts, dress, and that mischievous deceit so delightfully wrought by inexperienced young mothers, the *baby's blanket*, be done away with. Only a week ago, I took a baby but a few hours old into my arms. It was crying, of course; but that seemed to be expected of it. I was warmly clad, had on a large double shawl, and yet was not too warm; but when I took the little shivering thing that cold December morning, it had only a little square of flannel to cover both neck and shoulders. Of course, this frequently dropped off, and the little, feeble body was handled

as if it had its entire heat-generating apparatus in the most active order. I did not tell that *experienced* nurse that my babies *never* cried and rarely woke, while they *never* left the bed, except to be bathed and dressed, for ten days after birth. It would have been of no use, and she would only have resented such an insinuation against her skill. But seriously, I think a *skilled nurse* in charge of a young baby is a mistake dearly paid for. The chief difficulty lies in the fact of their *being* skilled nurses (?), and consequently too wise to learn.

Let a baby sleep after it is washed and dressed; a light covering thrown over the head to protect it from too much air, light and sound, and my word for it, if it is well and warm, it will sleep the first twenty-four hours at least, without waking, except for food. Of course, if it has any other than nature's food poked down its inexperienced little throat, it won't behave so well; no, not by any means. Think of the monstrosity of a teaspoonful of *cold water* given to a baby of an hour, or an equal quantity of *molasses*, or *wine*! Yet I have known these things given as quite important for the baby's well-being, and the babies had to be "tended" of course. That was what nurses were for. Let mothers set it down that if a new-born, healthy babe cries, or has to be taken up (which it does not), treatment is wrong, and should be changed.

[One other point should be made in this connection, and that is the barbarous custom of putting tight bandages around the little stranger as though it was to be *squeezed* into shape. No; the meddling grannies are all wrong in this, and should be taught better. Make the new-comer as comfortable as possible in a common-sense way, and Nature will do the rest. No wine, brandy, or other stimulant is necessary under *any* circumstances.—EDITOR SCIENCE OF HEALTH.]

THE Brooklyn Board of Health, at a recent meeting, resolved to prosecute the Rev. Matthew Hale Smith, the Rev. Dr. E. S. Porter, and the Rev. J. Hyatt Smith, for alleged violation of the ordinance which requires that all marriages, births and deaths shall be reported.

PROVERBS REGARDING DRUNKENNESS.

THE proverbs of a people are generally both pithy and pointed, and the man lacks discernment who can see nothing to admire in an old "saw." Let us glance at a few Irish proverbs, suggestive of the pernicious effects of intoxicants on mind, body, and estate. How true it is, that "When the whisky's in, the wit goes *a-shauchrán*" (wandering); and it unfortunately too often happens that the intemperate farmer "brews all the barley he grows." Donnybrook fair, Folly's carnival, and other gatherings of lesser note, are now things of the past; and yet the recollection of such scenes of blarney, bottles, and broken heads, is kept alive by the proverbs, "Bad luck three times a day—the fair, the flask, and the fight." Such fairs were a disgrace to the country. Fortunately, they have passed away forever. The Irishman loves independence—especially does he like to be independent of the licensed distiller. From time immemorial poteen-makers have given trouble to gaugers and revenue police, and the pens of Carleton, Lever, and Lover have described many a still-hunt. Master Pat is said to be partial to poteen, and accordingly the "saw" is, "His black cow (the poteen still) gives plenty; but, wirral it's the worst of milk." There are many proverbs relating to the pernicious effect of alcohol on the human frame. Take three: 1. "He'll die of hiccup, like the rest of his family" (that is, be killed by drinking, of which hiccup is a well-known sign). 2. "It cost him a fortune to paint his nose. Apples blossom in May—whisky blossoms all the year round." 3. "He went out with a sup, and came home with a *saggarth*" (left home tipsy, and came back so ill that the priest had to be sent for). The demoralizing effect of whisky is also clearly taught in the proverbs of the old land. "The glass is the straight road to the gallows, as Irene the piper said when he was going to be hanged." "Whisky softens the heart, but it puts the *meadal* (a provincial term for the devil) into the head." The poverty-producing tendency

of drink has not been overlooked in the sayings of the Irish people. "He had a wide throat that swallowed fifty acres of land and a hundred head of sheep" (alluding to a spendthrift who ruined himself by drink). "Let the 'bung-hole' alone, and you'll never have a hole in your pocket." "It's a bad sign of a woman when she creams her tea too high" (puts whisky into it). "The publican's kindness" is tersely put—"What Mick got at Cahir: a quart and a kick-out." England has also proverbs pertaining to the national beverage—ale or beer. "Generous Joe starves himself to fatten the ale-wife." "If you ride the brewer's horse, you'll lose the race." "He who drinks deep plows a shallow furrow."

"Go to bed sober
From May to October;
Live the same way
From October to May."

"The deepest flagon
Ne'er filled a wagon;
The flagon's slave
Soon fills a grave."

A few Welsh proverbs deserve to be noticed: "He pays too high who is always dry." "Ale that's brown takes a man's last crown; ale that's clear (water) is not half so dear." "A thief in the mouth leaves an empty brain." "A bottle in the hand burns a hole in the pocket." The following is not complimentary to a Welshman:

"Madoc had a hog
Than himself far wiser;
Madoc drank all day—
Piggys, only when t'was dry, sir."

The Scotch have also proverbs *apropos* of the drink curse. There is much meaning in the following, and it accounts for so much praise of the "barley bree" in Scotch songs: "He said that (uttered that nonsense) when the maut was abune the meal." Scotchmen generally do not believe the proverb which affirms that "The diel's in the stoup, and in the man that takes a sowp." Too often has it been found that "the eve rots while the

shepherd sots," and that "the mill grinds nae corn that draws water frae drams." An Inverness tradition is to the effect that two highlanders made a bet with a strange traveler as to the quantity of whisky each could "bear." The legend has it that a condition of the bout was, that the last who was able to keep his seat should carry the others home. Of course, according to the legend, the winning party was the devil, who strictly fulfilled his engagement:

"Angus drank a mickle pint,
Donald, he drank two;
The great, black de'il drank more than bath,
And whippit them awa'."

A reference to the sacred Proverbs will

fittingly close this paper. Does not the history of the world, from the time of Noah up to the last act of folly committed under the influence of alcohol, prove the truth of the following: "Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise." "He that loveth pleasure [sport] shall be a poor man; he that loveth wine and oil shall not be rich." "Be not among wine-bibbers, among riotous eaters of flesh, for the drunkard and the glutton shall come to poverty." "Look not thou upon the wine when it is red, when it giveth its color in the cup, when it moveth itself aright. At last it biteth like a serpent and stingeth liketh an adder."

HOW OFTEN SHALL WE EAT?

BY C. F. YOUNG, M.D.

PROGRESS! "Never too old to learn," is as true in California as elsewhere. We have just made the acquaintance of a lady nearly sixty years of age, who, having exhausted the whole bill of specifics for dyspepsia, found herself debilitated, emaciated, and discouraged. Some old numbers of a Health Journal were placed in her hands. She read them as hungry men eat bread, and immediately adopted the "two-meal-a-day system." She followed this plan two years, and improved all the time, but still continued to have flatulence, headaches, and periodic sickness-stomach.

Satisfied that the final issues of life and death were in her own hands, she determined to adopt the "one-meal-a-day system." For one year past this white-headed mother has taken but one meal in twenty-four hours—that at noon. She says, "From the first day I began to feel like a new being, full of spring and elasticity. I have not had a headache or sour stomach; no ringing of the ears, or motes before my eyes. No troubled dreams or bad taste in my mouth. I work early and late. I visit and walk, and outrank in vigor and endurance all women of my age, and by far the largest

number of the young women of the town and county."

Gems and fruit, or gems and vegetables, boiled meats and roasts, taken deliberately and well chewed, are used at noon.

We saw her, and neighbors who had known her many years. They say her restoration is a marvel and wonder to them. Her complexion is clear and rosy after a walk. She sleeps well. Her muscles are firm and general health excellent.

She is well satisfied that for fifty years of her life usefulness and vigor were both impaired by taking too much food. In other words, she was all that time trying to "dig her grave with her teeth!" This may seem harsh, but it is a fact known to many people, that the best of food, taken in excess, becomes an element of death rather than of life.

Whether one meal, or two, or three, best suit, each person must carefully observe and decide for themselves.

We know persons who constitutionally have a weak and slow pulse. Digestion and assimilation will be, or may be, correspondingly slow. If of sedentary habits and brain-wise active—if, as soon as they read or converse, hands and feet

become decidedly cold, then they better at least limit themselves to two meals, and a part of each should consist of crisp, dry food, to insure thorough mastication. Walking and working in the sunshine, both morning and evening, with rest in the middle of the day, will suit them best.

CASE SECOND.—A lady of forty-six years, who, by five years of regular life, taking but two meals a day, has overcome her constitutional difficulties (of a serious and complicated nature), and bids fair for a long life of useful activities. She has not taken tea or coffee in that time, or eaten food after one o'clock, P.M. She has a family to care for, and a medicine-taking, coffee-drinking, sick husband to be patient with and take care of. If men, as a rule, respected their wives and mothers as much as they do a Patent Medicine Almanac, then, in these cases and thousands of others, a revolution would be effected in the habits and incentives to action of the family; new and living streams of influence would flow out to bless the world. But while husbands are found who persist in questioning the wisdom of their wives, even when this wisdom is born of experience, boys will follow their own wild ways in spite of exhortation and prayers. Girls will eat the food and drink the beverages "that father drinks, because it tastes good, and father knows just as much as mother." Sinning, they, too, shall suf-

fer. We know these histories, where boys and girls are both ruined through lack of harmony in respect to home habits and home influences.

CASE THIRD.—A woman who for five years has steadily, faithfully, squared her every-day life by the philosophy and principles she has learned from stray numbers of Health Journals. From a nervous, weakly invalid, she has grown health-wise to be a strong, vigorous woman. She is saving for her husband in wages and board of a servant at least six hundred dollars a year. In doctor's bills, as compared with her former life, at least, as much more. Continued and confining housework consumes her vitality about as fast as she saves it; but she says her life is very pleasant now, compared with the past. Remembering that self-preservation is one of the first laws of life, and also remembering that each soul must stand or fall for itself, we rejoice that these mothers have the courage to persist in the new life, and come up to the levels where there is joy and satisfaction.

Thousands of thousands of desponding women may also come out of shadows into sunshine, circulate your Health Journals! Call attention to the facts and principles that suit individuals. Never grow weary in proving that God and nature are willing to bless and heal all who will obey the divine laws of health.

SELF-REMEDYING DISEASES.

BY R. T. TRALL, M.D.

THE eminent surgeon, Prof. N. R. Smith, M.D., of Baltimore, recently delivered a lecture in the Masonic Temple of that city on "Doctors," in which he discussed the much-mooted question, whether the medical profession had been thus far, as a whole, more useful or injurious to society? The concluding part of his discourse affords much matter for serious reflection. We quote from the *Baltimore Gazette*:

In answer to the question, what good medicine had done, what great principles it had establish-

ed, and what good to the human race had resulted from its discoveries? the speaker said he would refer to only two or three benefactions. First, he would mention the discoveries in reference to the cure and prevention of small-pox. In speaking of the supposed time in which small-pox first cursed the human race, it was stated that some believed that Job's sores were those of small-pox. But the Bible states that three friends remained by him day and night, and it may be relied upon that if he had had small-pox and they had known it, and known what small-pox was, they would have let Job rest. [Laughter.]

Professor Smith next gave some account of the fearful ravages of the disease in the times when

its treatment was unknown, and when three-fourths of those attacked died, and whole cities were depopulated, and also mentioned the discoveries of Sydenham in regard to inoculation. The next great discovery, and one of the greatest benefactions to the human race ever known, was that of vaccination, by the distinguished English physician, Jenner. The way in which the discovery was made was now related, and then it was stated that the next great benefaction, and one of immense value, was the introduction of medicine which acts not only as a curative, but which upon being used as a prophylactic, guards the human system against disease.

The value of sulphate of quinine was here spoken of, and in that connection it was stated that if the English army had invaded Ashantee sixty years ago, at the distance of one hundred miles from the coast, fifty per cent. of the troops would have been dead from malarial disease, and the remainder would have fallen an easy prey to the Africans. Now quinine has protected them. But for the protection of quinine the survey of the proposed canal across the Isthmus of Panama to connect the Atlantic and Pacific could not have been made, and when that great work is done, which the speaker did not doubt would be done, if not by the present by the next generation, it would be only under the protection of the sulphate of quinine.

The self-termination of disease was at this point spoken of, and it was stated that it was questionable if any "treatment" in cases of typhoid fever was necessary, and that all violent remedies were exceedingly improper. It is a great mistake to believe that no diseases terminate themselves, and even in some cases of consumption the cavities in the lungs close, heal, and the patient recovers. The remarkable recovery of Dr. Dale, of Yale College, from consumption, and the fact that he lived to be over ninety years of age, were mentioned.

The work of nature in restoring wounds and fractures was described briefly, and instances—one of which occurred under Professor Smith's observation—in which wounds through the heart did not prove fatal, were told. The Professor also told of instances in which wounds through the brain had failed to produce death. He had known of a boy in East Baltimore living with a bullet in his brain, and it is reported that a soldier lived with a ramrod through his brain. Instances of persons living after being shot through the lungs, and with buckshot in the brain, were spoken of. The speaker had known also of three instances in which men lived after their arms had been torn from their sockets by machinery.

While speaking of the remedies to which some persons resort, Professor Smith said a woman in this city had confessed to him that she had abandoned his remedies and cured her daughter by using the ashes of a tuft of hair cut from between the ears of a black cat. [Laughter.] Here the

Professor read a letter which he received yesterday, and in which his volunteer correspondent said that he could cure all acute diseases by using sugar and water and breathing upon the parts affected. The Professor said he believed that his correspondent really believed what he offered to do.

It is estimated that there are 2,400 distinct diseases, and that 1,500 of them are self-remedying. In the further discussion of his subject, the Professor gave the opinion that whisky and tobacco create more diseases than all other causes combined, and that they have vastly more power to create diseases than the medical profession has to discover and apply remedies. The longevity and vital powers of animals were then spoken of. The dog attains maturity at two and a half years and dies at twelve, while the elephant reaches maturity at twenty, and dies at one hundred years. Man reaches maturity at twenty, and the Professor said he was one of those who believed that man should reach the same age with the elephant. But his life is short, and in England, where the highest civilization exists, the average is thirty-three years. He attributed this fact especially to the use of ardent drinks and tobacco. The Professor had but little to say of quacks, but said that if there were one hundred quacks in Baltimore, there must be forty thousand dupes to support them. He closed without an allusion to the two schools of allopathy and homeopathy, and gave no opinion further than that expressed in the beginning as to the benefit to the world from physicians.

The idea of a disease being "self-remedying," or "self-limited," as some authors state it, is a scientific absurdity, though consistent with the prevalent theory of the nature of disease. *Disease itself is a remedial process.* But the effect contemplates remedying the vital organism, not itself. It would be no more absurd to say that digestion is a self-remedying function, or that growth is the effort of a man to make himself, than to say that disease remedies itself. The process of disease may remove morbid causes and remedy abnormal conditions; but it no more remedies itself than a rolling stone remedies itself after it has reached a level place. Diseases are abnormal vital manifestations, in the same sense that lying and swearing are abnormal moral manifestations. How would it sound to moral ears to be told that a majority of lies and a large proportion of profanity are self-remedying?

But, if $\frac{1500}{2400}$ of diseases are self-remedying, in the sense in which Dr. Smith

understands the subject, we are curious to know why the medical profession, Dr. Smith included, drugs and doses all cases indiscriminately. Where is there a drug doctor in all the land who withholds his doses of drugs in any one of the "self-remedying" fifteen hundred diseases?

Nor can we see the propriety of the professor's raid on alcohol and tobacco. True, they occasion all the evil he imputes to them; but he is not the one to "strain at the gate and swallow the saw-mill." So long as he approves the principle of poisoning patients because they are sick, and employs a hundred drugs more destructive than both, his proper quarrel is with his *materia medica*, not with two of its two thousand agents.

For, be it known that tobacco has no less than seventeen recognized medicinal properties; while alcohol, according to all the text-books of his own school, and according to the practice of nine-tenths of his associate physicians, is the most powerful, most important, and most indispensable "supporter of vitality" in existence. Well did the late Sidney Smith say, "the principal cause of quackery out of the medical profession is the quackery in the medical profession." Every medical dupe in the world, and every medical quack in the world, are following and practicing the *false* doctrines taught by the *regular* medical profession.

We respectfully suggest to Dr. Smith and the medical profession, that it is time we had something new in relation to the wonderful discoveries in medical science. That physicians have made useful discoveries, and introduced useful fashions, is indisputable. But the benefit does not lie in the direction of drug-gery; it consists wholly in sanitary conditions and hygienic agencies. As to vaccination and quinine, they are about played out. For nearly half a century the profession has been ringing changes on vaccination and quinine whenever the question of its usefulness comes up for discussion. But there are some eminent physicians, and thousands of non-professional persons, who have investigated the subject and arrived at the conclusion

that the virus of small-pox and quinine, as well as alcohol and tobacco, are among the curses of the drug shop.

"We do but cure one disease by producing another," says Professor Paine, in his huge volume, entitled "Institutes of Medicine." The statement that quinine has protected the English army in Ashantee is wholly gratuitous. McClellan's army, in 1862, while in the Chickahominy swamps, was "protected by sixteen thousand dollars' worth of quinine daily, but how rapidly the drug-protected soldiers died soon after of other forms of disease than intermittent fever, may be learned by any one who will consult the mortuary statistics of that disastrous campaign.

Quinine, like variola virus, alcohol, tobacco, and a thousand other drugs, will prevent and "cure" some manifestations of "self-remedying" diseases, but with the invariable sequence of other diseases in a chronic form, and hence more insidious and more dangerous. When physicians understand the true theory of disease, all this nonsense of curing or preventing diseases with drugs, poisons, viruses, venoms, or anything else but Hygienic agencies, will disappear from medical books, and medical lecturers and orators will find some better theme for entertaining a popular audience than an eulogium on the virtues of poisons.

PHYSIC.

LINES BY AN INVALID.

"Don't you think you're looking ill?
Try a blister, draught, and pill!"
This on every side one hears—
Each friend something volunteers.

"Ague! What cold hands you've got!"
"Fever—when your hand's so hot!"
Contradictory advice—
Gratis, dear though at the price.

"Doctor A you ought to see!"
"You should call on Doctor B!"
"Why not try the water-cure?"
"Take a Turkish bath, for sure!"

Cockalorum's pill terrific,
Bunkum's only cough specific,
Doobam's ointment, Chousam's plaster—
Still they send me fast and faster.

How I hate their smell and sight—
I would fain be ill outright;
Typhoid, cholera, or phthisis,
So I could get rid of physic—
Physic—physic—physic—physic!

IDIOSYNCRASIES.—WARPED MINDS.

IN an obscure New England village, two gentlemen sat down to transact an item of business. Before the transaction was completed, the one asked the other for the indulgence of a slight respite. The courtesy granted, he proceeded across the way to some sort of a trading-place where liquor was kept, and requested one quart of rum. The article was presented him in a convenient vessel, which he put to his lips and held there till the intoxicating draught was drained. Then he returned to his business. Strange as it may seem, no signs of drunkenness followed the remarkable act. His mind was as rational, and his hand as steady, as before.

When the proper time arrived he both apologized and explained. Practically he said: "This is my idiosyncrasy. Once a year I must have my quart of rum. An uncontrollable exigency demands it, and I have to obey."

Such is the relation as we received it. We cannot personally vouch for the truth of it. We have spent much time in the study of human physical phenomena, and this is so much like very many other things we have a knowledge of, we are constrained to place the narrative at the head of this article.

Webster mentions an *idiosyncrasy* as something pertaining to the physical "constitution or susceptibility." We are very glad he expresses himself in this language, because we want to say something that follows essentially the same line of thought. It seems to us that, without violating any specially established principle of scientific truth, we may classify idiosyncrasies under two heads; namely, *constitutional*, or such as may readily be traced to some peculiarity of temperament or organism, and *special*, meaning those whose origin is remote or indiscoverable by the ordinary process of inquiry.

It has been said that it "takes all kinds of people to make a world." There is a popular assent to the proposition

that every man has both his strong and weak points. But over and above the usual differences of physical character, there are in many persons an excess of some quality of their natures that impels them towards eccentric attitudes and conduct. Some men are simply too firm, too benevolent, too cautious, or too constant in the assertion of some one or other of the faculties or qualities of their mind, disposition and appetites; and the causes of their peculiar individual characteristics are sufficiently apparent, both to themselves and others. Then there are eccentricities whose causes are not only ordinarily inscrutable, but their actual existence is even sometimes unknown till after one may have suffered a world of inconvenience and pain on account of them. Their manifestations involves peculiar, and often occult, susceptibilities to the influence of particular articles of food, drink or clothing, as well as of certain objects and persons in association. If we were taken sick, and were at liberty to dispose of our personality as we chose, we should first seek relief through purely physiological considerations, religiously regarded. We should look for wholesome food and drink, pure air, easy clothing, and freedom from obligation and anxiety. If these failed, we should look for idiosyncrasies. No intelligent person will fail to recognize the evil liabilities of a too constant uniform direction of the emotions. If we found idiosyncrasies in this direction, we should seek diversion. We should try to regulate our life so as to avoid too great a strain upon any faculty of our nature, and to this end should study our dominant tendencies. Then, if necessary, we should seek for the hidden things calculated to influence the welfare of our individual man.

We have made observation that forcibly reveals the importance of a correct anticipation of these special idiosyncrasies. We have known a person to suffer years of pain and distress from the daily

or frequent use of wheat bread as food. Coarse, fine, bolted or unbolted, it was bad for him, and yet its stealthy effect was not discovered for a long time. A man was once relieved of very severe symptoms of physical disease, by simply changing his clothing next to his skin. Yet in this case there were none of the commonly allowed signs of disagreement between the system and the matter in contact.

The proper administration of our bodies regards certain matters of consistent indulgence, as well as of healthful restraint. Especially is this thought applicable to the use of those having children under their charge. While they are teaching to restrain the excesses of wayward nature, they should in an intelligent manner seek to anticipate what eccentricities may be beyond the direct control of any individual. Many a little one has been bitterly wronged because it was held to be morally responsible for, or able to resist, what was simply an ungovernable freak of its personal nature.

A patient once presented himself to a physician with a complaint of an excess of appetite. He had done his best to master it by force of will, but had been obliged to succumb. "Can I be cured?" he anxiously and sorrowfully inquired. "Yes," replied the doctor, "but you can't cure yourself. If you will implicitly accede to my advice, I will bring you deliverance." The point we make is this: If there is any one to scientifically control and reconstitutionalize our odd children, well; if not, their peculiarities of constitution must be treated with charity and patience.

History illustrates the phenomena of idiosyncrasies, which, while they exist, demand proper recognition. John Calvin would compose in bed, and when his power of composition failed, he arose and diverted himself till it returned. Then he re-sought his couch and renewed labor. Bossuet wrapped himself in a bear skin when he attempted intellectual work. Luther soothed his excited feelings by playing on a flute, as did Frederic II. allay the most violent mental agonies

with the same instrument. Goethe found pleasure in caressing a pet snake as he would a bosom friend. It is said of the Emperor Augustus that his fondness for a quail was so great, the loss of one afflicted him more than the loss of a battle. Many other similar cases might be mentioned, showing the ways of nature to be almost inscrutable, and next to past finding out. [Not insane, though warped.]

C. E. LORD.

THE TEMPORARY TEETH.

BY M. C. SIM, D.D.S.

A LACK of appreciation of the value of temporary teeth, with a desire to correct public opinion on the subject, is my excuse for what may follow.

The temporary teeth are as valuable for the purposes for which they were intended, as the permanent ones are. The purposes for which they were intended are, first, mastication. I think no one will deny but that it is as necessary to the health and growth of the child as it is to the health of adults. To thoroughly masticate food, is the first and most important step toward digestion, without which the waste (and in children the building up) of tissue, either nerve, bone, or muscle, cannot be carried on. Mastication cannot be properly performed, either when the teeth are diseased or lost. Then, recollecting that there are but two molars, or grinders, on each side in each jaw, and these usually the first to decay, it is good practice to attempt at least the saving of them.

Second, Articulation. The loss of the front teeth is the cause of much of the lisping so common, and also so disagreeable, in children, to say nothing of looks.

Third, the Preservation of the Arch. It is a fact, although not generally known, that the arch of a child's mouth, when the ten temporary teeth are in position, never changes, except as a result of disease or mechanical violence. One form of mechanical violence is the extraction of teeth, and results in a change of the arch, and a change of the arch, either in length or width, will almost invariably force the permanent teeth into some ir-

regularity, which is a common predisposing cause of decay. So that from loss of the temporary teeth, to loss of the permanent ones, is but a regular descent, and easily followed.

The first molar, or six-year molar, as it is termed, generally shares the fate of the temporary teeth, because most persons think it one of them, and although it is subject to the fluctuations in quality that the ills of childhood entail upon it, it is nevertheless a permanent tooth, and, if lost, is not replaced by nature.

How to have good teeth, takes us back to the development and growth of teeth in the jaw before birth, which, by the aid of science, can be greatly improved in quality by supplying in the food of the mother the lacking elements.

How to keep good teeth, requires the watchful care of the parent, from the time the first tooth appears until the child is old enough to attend to them itself. Should decay, disease of the teeth or gums, or discoloration of the teeth, be detected, consult a conscientious and intelligent dentist.

Don't neglect the teeth of your children. If they are defective in enamel or dentine, they can be improved by constitutional treatment, either by supplying the lacking material in an acceptable form, or assisting nature to use that already in the food, as the case may require.

No trouble, no care, no expense can be too great in the treatment of the temporary teeth; the aim being to save them until nature, by the absorption of their roots, signifies its readiness to replace them by the permanent ones, which are good in quality, regular in position, beautiful in color and shape, according to the care with which the temporary teeth have been guarded.

NATURE SUGGESTS ACTIVITY.

BY HARRIETTE A. KEYSER.

WE have not learned yet in this country that when nature sets children in motion it is not the business of parents and teachers to restrain children, until

activity degenerates into viciousness. Children in this country are rendered weak and nerveless because development, by means of exercise, receives little encouragement; while in German schools gymnastics are made part of the regular course of instruction; and in English schools cricket, boating, bathing, games that try both endurance and speed, such as "hare and hounds," and the like, are customs which have acquired the force of laws.

What weak-muscled American boy, cursed already with a degenerate circulatory and nervous system, does not feel even his worn-out blood tingle with pleasure as he peruses the pages of "School Days at Rugby," the recital of the sports of active boys?

In this city, in the public schools, two recesses are allowed of about twenty minutes each; a teacher stands in the play-ground to restrain the children. They are apt, when allowed to play freely, to give vent to whoops and yells, which are perfectly natural, but disturb the neighborhood. If they run, they make too much noise, so they are brought down to the mournful trot, which horses are compelled to assume at a well regulated funeral. In some of the schools the twenty minutes are often spent by the children standing with their toes to a crack. What pleasanter recreation could there be than this?

Restrained until their play is a misnomer, the boys fall to kicking each other, pulling each other's hair, and subside into young ruffians, unless closely watched. The girls chaff each other, or walk up and down in couples with their arms sentimentally twined about each other's waists, or, because they have nothing else to do, they fall to kissing the unhappy lady teacher who presides over their festivities; sometimes they have been eating that joy of school children—taffy. The rest may be imagined! Language fails to describe the depths of woe of the unhappy teacher. So disagreeable is the duty of teachers in play-grounds, that they dread the weeks which call them to this species of police inspection.

It will avail little in objection to the above for any one to assert that exercise is attended to in the public schools, because there are a few where the scholars shuffle wearily through twenty minutes gymnastic exercise (so called) every day. There is no system of exercise in the public schools as a class, and where calisthenics are introduced, they are rendered wearisome because the teachers themselves do not understand how to adapt exercise to the wishes of the children.

The remedy for the state of things described above, is simply to have a playground sheltered from the rain, but well ventilated, furnished with simple and inexpensive gymnastic apparatus, and, most important of all, a teacher who is not only a skillful gymnast, but who has added to this a knowledge of the nature and needs of childhood. Then compel every child attending the school to exercise at least one hour of the six devoted to instruction.

Let us have a race of nervous men and women in the future—that word nervous is used here in its true sense—strong; we have corrupted it until, colloquially, it always signifies disordered nerves, and is applied to a race of feeble men and women, who cannot endure the necessary noise of the world, and will never be satisfied, since they cannot live in a vacuum where they can hear nothing. There have been too many such men and women in the world. Let us look to the children, and the future will smile upon a vigorous race.

THE BETTER WAY.—A HYGIENIC BABY.

BY A CANADIAN MOTHER.

MR. EDITOR : The regular, welcome arrival of your valuable health publication awakens in me a feeling of kindly interest towards you and all your readers. Common labors, fears, sufferings, and hopes tend to unite people, though their blood and birth may be very distant. The SCIENCE OF HEALTH has brought sunshine to my own home, and I desire to communicate, briefly, some of my recent

experiences, which may lead here and there one into the better way.

I am a young married woman of twenty-two years, with a baby in the family, which we are trying to rear on hygienic principles. Of course, there never was such a baby. Every mother who has lovingly bent over her first-born will understand the fact, and such nice times we have with it! It is six months old, and behaves itself with such decorum; goes to sleep at dusk, and, with little interruption, sleeps till the dawn of morning. It is rosy because healthy, is happy and a wonder to its relations. One of them, the mother of six children, when she heard of my own diet, which is thoroughly hygienic, exclaimed, "If I should live like that I would have no milk." At the same time her youngest child was tugging with all its might at a bottle of cow's milk, containing sugar enough to provoke the development of scrofula. The mother's supply of milk being short, her physician ordered her to take stimulants, one of which was beer. This she could take only with extreme loathing. Shortly afterwards the child became so averse to its mother's milk that it could not be induced to nurse any more. And who can blame this juvenile interpreter of nature and truth? You may conclude its mother's exclamation did not weaken my faith in bean porridge, Graham and oatmeal puddings, cracked wheat, and pleasant fruits. If the beer drinker's breath smells unpleasantly, why should not the beer drinker's milk taste as badly? And why should not an unpurged baby repel it?

Another incident I will relate. A short time since I was informed that a little stranger had come to the home and family to claim me as a sister. I accepted the invitation to visit them, and stay a week to help them, since they had a great deal of confidence in my judgment from the success I had with my own baby. The little one was exceedingly constipated in the bowels. They had tried oil with unsatisfactory results. In our family we had learned practically that the syringe was all sufficient, and, as oil and other cathartic medicines had been

abandoned, I proposed to my parents to get a syringe, since they had asked my advice, and they saw the necessity of doing something, and did not wish to use medicine. [The Hygienic leaven having begun to work.] Father started to town to get a syringe. Having bought the article, he met the family physician, who asked after his patients. Being informed of the little one's difficulties, he said: "O just give it a little oil, give it a little oil." This advice was, however, not acted upon in this case. We immediately went to work with the new instrument, and it was really laughable to see the ignorance of those who were so much older than I, in respect to its use. Fortunately, I knew how to apply it, and the witnesses were amazed and delighted at the almost instant and favorable results. In the course of an hour after the removal of the obstruction, the bowels worked naturally. Mother thought it worked like magic. Father thought there must be something more than natural about it; while I thought it was nature simply, and thanked God that I had received opportunity to learn so as to be useful to those who had not yet obtained the light.

Do not thousands of little ones suffer terribly, when constipated, by being dosed with nauseous physic, which must be very irritating, when, in five minutes, entire relief can be obtained by the use of the syringe? Are not thousands of grown persons suffering with headache and feverishness and despondency, through constipation, who think themselves obliged once in a week or two to take a dose of physic, who might, by using the syringe, relieve themselves; or, what would be better, if they would eat cracked wheat, Graham bread, and fruit, attain a natural regularity of the bowels, and thus save themselves from untold miseries?

For these reasons I have ventured to offer these plain statements, hoping many a loving young mother, with her precious charge, may be benefited.

MRS. SARAH J. HALE, the editor of *Godey's Lady Book*, is 85 years old, still vigorous in body and mind. Her maiden name was Sarah Josepha Buell. She has been a widow ever since 1832.

IMPURE WATER.

PUBLIC attention cannot be too often called to the danger of using impure water in households. The origin of typhoid fever, which so frequently runs through families in city and country, is oftener in wells and springs than is supposed. In cities it is easy to understand, when aqueduct water is not supplied, how wells may become contaminated; but for many it is not so easy to see how wells in the country, among the hills or in the green valleys, can become so impure as to be sources of disease.

Since the general introduction of aqueduct water into large cities, typhoid fever has become more common in the country than in the city; and this disease is certainly zymotic, or one which results from a poison introduced into the blood. Wells in the country are very liable to become contaminated with house sewage, as they are generally placed, for convenience, very near the dwelling, and the waste liquids thrown out upon the ground find easy access, by percolation through the soil, to the water. The instances of such contamination which have come to our notice, and which gave rise to fevers, are numerous.

The gelatinous matter which is often found covering the stones in wells affected by sewage, is a true fungoid growth, and highly poisonous when introduced into the system. It is undoubtedly concerned in the production of typhoid fever. How it acts it is difficult to determine, but it is at least conceivable that the spores of the fungus may get into the blood and bring about changes, after the manner of yeast in beer. These spores, it is well known, develop rapidly by a kind of budding process, and but a little time passes before the whole circulation becomes filled with them, giving rise to abnormal heat and general derangement, called fever. These fungoid or cœnvroid growths are always present in waters rendered impure by house drainage, and great caution should be used in maintaining well waters free from all sources of pollution.—*Jour. of Chemistry*.

THE DANGER OF SEDATIVES.—One of the dangers attending the use of the various sedatives employed in the nursery is, that they tend to produce the opium-habit. These medicines owe their soothing and quieting effects to the action of opium, and the infant is by them given a morbid appetite for narcotic stimulants. The offering for sale of such nostrums should be prohibited, as tending to the physical and moral deterioration of the race. In India, mothers give to their infants sugar-pills containing opium, and the result is a languid, sensual race of hopeless debauchees. In the United States the poisonous dose is administered under another name, but the consequences will probably be the same.—*Popular Science Monthly*.

THE Shaker Society of South Union, Ky., has offered to adopt and educate fifty of the children orphaned by the recent pestilence in Memphis. [What! and dry them up in celibacy? Don't let them do it. It will be a *Mis-take*.]

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

DELICATELY NOURISHED.

BY JULIA COLMAN.

Important Influence of Diet—An Illustration—One Cause of Bad Breath—Indigestion—"Much in Little"—What is Nutriment?—Negative Food—Dietetic Reform—Boiled Wheat—Warmed Mushes—Canned Fruit—Dried Fruits—The Banana—Dressed Bananas.

"I EAT so little that I want my food to be of the best kind, and just as nutritious as possible."

The idea which my friend expressed in these words, is one that is harbored more or less by many people. They seem to think that the richer and more concentrated the food they take, the greater will be the amount of nourishment they receive from it. They are wonderfully chary of the work they wish their stomach to perform, and so they prefer food which is easily digested, or they would take pepsin to digest it with, or they would get it already digested, so far as the gastric action is concerned, which is, I believe, one of the latest whims of these modern Don Quixotes of physiology.

All this comes, of course, from ignorance of physiological science. People who do not know what the stomach is, and who do not understand the process of digestion, cannot be expected to furnish the best materials for that process, nor to manage it intelligently, so far as they manage it at all. In fact, it is among these unintelligent ones that we find those who make the most ado about double refined and concentrated food, who style preparations of hominy and of wheat-meal, "pig feed" and "bran bread," etc., etc. They do not eat such stuff—oh no! they are fed on finer material. They want richer blood and finer muscle and more perfect tissues generally than such "coarse fodder" will produce.

IMPORTANT INFLUENCE OF DIET.

All this goes to show that they do con-

sider the influence of our food in these directions a matter of no small importance. Indeed, we find abundant proof of the existence of such beliefs or convictions, ever since the time when the diet of the first pair was appointed to them in the Garden of Eden, and the first sin was committed through partaking of forbidden food. The sacred writings of all people abound with rules, precepts, and maxims concerning food, drink, abstinence, etc. The gods of Greek and Roman mythology fed on nectar and ambrosia. The saints and ascetics of all ages have hoped to attain spiritual benefit through various kinds of self-denial in diet. When the chosen people of the Old Testament were put in training for the high destiny to which they were appointed, the specifications with regard to things eatable were extensive and elaborate, while for a whole generation the actual diet allowed them was still more restricted, and "man did eat angel's food."

And even now, when the dispensation of types and shadows has passed away, and the discipline and experience and revelations of the past have wrought out a higher type of civilization, and produced a race capable of appreciating and adopting the higher laws of the human system, we still find large portions of the so-called Christian Church regulating the diet of their votaries to some extent as a part of their beneficial discipline. These things we say merely to show how deeply and strongly a belief in the influence of diet has taken possession of the human mind; for men have usually incorporated their strongest convictions in their religious creeds.

AN ILLUSTRATION.

But let us examine more carefully the notion of producing a purer, sweeter, and stronger physique by the use of concen-

trated food. We will take for the purpose of illustration a very familiar, case the use of bolted wheat flour instead of the whole grain ground up and used entire. The bolted flour is popularly supposed to be much the more nutritious, the bran and other so-called innutritious portions being rejected as useless. But it is found upon examination that the usual bran is a rich crust, and with the chit contains some of the most valuable portions of the grain, amounting in all to 40 per cent. of the whole nutrition. That which is left is mostly starch, and that which is taken away is largely composed of gluten, silica, phosphate of lime, and other such things, very much needed in the system. For it is a fact not generally known, that wheat in its entirety contains the very elements of the human system more exactly than any other solid food. To destroy its perfect proportions, then, deteriorates the wheat irreparably as an article of food.

Further than this, the bran, so much decried, the very outside skin of the wheat, plays an important part in digestion, though it be not itself digested. It acts as a sort of mechanical incentive to action in the lower part of the alimentary canal, helping to carry off the waste matter of the system. If this be not done promptly, constipation ensues, and this means the unnatural retention of the waste matter in the bowels when just ready to pass off, and the return of the fluid portions of the fecal mass into the blood. Fine rich blood this is, to be sure, but it has taken up the foul matter only to throw it off by some other channels.

ONE CAUSE OF BAD BREATH.

Much of this waste matter is passed off by the lungs, imparting to the breath an odor not like that of "Araby the blest," but giving a correct indication of the internal condition of this "delicately nourished" individual. To the skin it imparts its own hue, and an odor not wholly indicative of sweetness. The liver, in trying to do a share of this extra work, overdoes itself, and "liver complaint" in some form ensues (a frequent accom-

paniment of constipation), and the whole system becomes liable to disease. In no sense, then, is the person more delicately or effectively nourished than he would have been with the whole wheat.

INDIGESTION.

Probably one half of the population of this country suffer more or less from this form of indigestion, and it is caused more than in any other way by the use of bolted flour. They suffer also in teeth and bones from the lack of silica and phosphate of lime, which they should have had in their bread. And these rickety people, with rotten teeth and foul breath, and catarrhs, and yellow skin, and impure blood and torpid livers, are the ones who call themselves "delicately nourished," and turn up their dirty noses at the pure, healthy, ruddy people who live on wheat-meal, oat-meal and fruit, and other natural foods.

I have spoken thus at length about the use of bolted wheat, because it is a familiar case, and because it is doing so much injury; but it is by no means the only case of the kind from which we suffer. There are many articles in daily use which have been tampered with in a similar way, such as butter, cheese, beef tea, preserved fruits, etc.

"MUCH IN LITTLE."

The idea of using concentrated nourishment also enters largely into the economical aspects of the food question. It is sometimes desirable to put the largest possible quantity of nutriment into a given space, as in the case of victualling ships for whaling voyages, Arctic expeditions, coast surveys, and such like. It also affects many aspects of the market question. Foods of various kinds would be cheaper than now if they could be so reduced in bulk while still retaining the same amount of nutriment, that the cost of transportation would be reduced. This is now effected to a large extent by simple drying, which takes away only what can be readily restored, and what is restored usually before the article is eaten; but this is a different thing from chang-

ing the proportions of the nutritive elements and injuring the article for food.

Another case in point is the process employed in making the extracts of meat, lately so favorably introduced to the scientific and to the eating public. Thirty-two pounds of meat are boiled to obtain as much as possible of the extractive matter, and then the water is evaporated from these, leaving one pound of solid matter. It is true that water is then added to this when wanted to use; but the mistake lies in supposing that this in the first place contained all the nutritive parts of the meat. It does contain the salts and the osmazome, the flavoring matters, or those which give taste to the meat, while the fibrine and nearly all the solid parts have been removed.

Dr. Edward Smith, of London, in a late work on "Foods," after sifting this matter, says, pertinently, "What is necessary to render this extract as valuable as the meat for the purposes of nutrition, is to restore the substances that were rejected, and those have been shown to be almost equivalent to the whole meat." And again, "All that is required for nutrition should be added to it." Liebig himself admitted at last, that "it is not nutriment in the ordinary sense," and many others of late have examined the matter and come to similar conclusions.

WHAT IS NUTRIMENT?

That expression, however, "nutriment in the ordinary sense," is not very satisfactory. There are those who will catch at it, and infer that the extract may be nutriment in some very extraordinary and valuable sense after all. There is a deal of delusion afloat on that subject, of the very same character of that already referred to. People imagine that there must be or may be some very extraordinary nutriment that is to transform us into something more than ordinary mortals, and the effects upon the nerves and senses of such articles as tea, coffee, opium, tobacco, hasheesch, and alcohol, have aided the delusion very much.

NEGATIVE FOOD.

Some, who ought to know better, talk

about these substances as "negative food," and maintain that these must afford nutrition, because people who take them sometimes eat very little else. They might as well talk about a fever affording nutrition, because, when a man is down with a fever, he often does not eat anything for days and weeks together; and forsooth, what keeps him up if it is not the fever? Of course, we know that the system is not kept up in a condition of health in the case of the fever, and if we used our common sense, we would likewise understand that the condition of the man who takes opium, alcohol, etc., is very far from being one of health.

"Negative food" is a contradiction in terms. The idea intended to be conveyed is that it prevents the waste of the system by preventing the changes in the tissues. But if we use the system, the changes in its tissues are inevitable; in fact, they are so necessary to perfect health that we often take exercise to promote these changes and preserve health. In so far, then, as these drugs do prevent these changes, they might appropriately be called "negative food;" that is, no food at all, though that is very far from being the definition given to the term by those who use it. In fact, it is not a scientific term at all. Its only use, so far as I can find out, is to delude people with the idea that it does mean something.

It is wonderful to see how many combinations and concentrations and super-exquisite affectations men have tried in the past, and quite as wonderful to see how unwise and unintelligent they have been. They have not only departed from the simplicity of nature, but they have warred against it. They have hitherto ignored the natural principles that lie at the foundation of nutrition, and therefore they could not arrive at the perfection of art.

DIETETIC REFORM.

Our half civilized ancestors used unbolted wheat-meal before enterprise and experiment had taught them that there was anything else; we return to its use because we find it better than anything else. They were liable to be led away

from it, and were led away from it by ignorant experiments; we abide steadfastly by its use, because we understand the reasons of its superiority; while we have at the same time learned to manufacture and cook it in a superior manner, in harmony with natural principles. This is coming back to nature intelligently. This is the perfection of art, and one of the achievements of the highest civilization; and of such a character are the principles that are to work out our dietetic reform.

SEASONABLE RECIPES.

Boiled Wheat.—Excellent dishes for breakfast, dinner or supper can be made from unground wheat boiled. The freshest and cleanest wheat, with the plumpest kernels, should be selected. The white and the amber-colored wheats cook the most readily, and they are also preferable on account of having a thinner skin. Time is saved, in picking it over, to have it first run through a smut machine and then washed, though the cooking over is indispensable. Put it to boil with five or six parts water to one of wheat, by measure. Cover close, and after it begins to boil set it where it will barely simmer. Cook it four or five hours, or until the kernels mash readily between the thumb and finger. Hard wheat of any kind will require still more time, and some kinds may be cooked all day without softening.

When done it should be even full of water or juice, which thickens and becomes gelatinous on cooking. Salt and send to the table warm, to eat with meats and vegetables at dinner. It can also be eaten by itself, trimmed with sugar or butter, or both, or syrup, or milk. It moulds nicely, and may be served cold at breakfast or supper, or it may be steamed up and served hot at breakfast. The long cooking it requires, of course precludes its being served fresh at that meal. After it has once cooled, however, it cannot be made so soft and liquid as at first by any subsequent cooking. Like other starch, when it once sets it loses its liquidity.

Warmed Mushes.—This fact should be noted in serving over mushes of any kind. They cannot be very successfully treated by pouring in hot water and heating and stirring them up. This, in most cases, makes them pasty and slimy, and utterly disgusting. These plain dishes pay well for careful treatment, and a little care and thought save time and improve the dish. The best way is to steam the mush thoroughly, disturbing its consistency as little as possible. Another good way is to put a little water into a stew-pan, turn in the mush, cover close and cook slowly, without stirring, until well heated through, and then dish, rejecting the moistened portions. This is, in fact,

only another method of steaming it. Oatmeal mush, treated in either of these ways, can hardly be distinguished from that which is fresh. Mushes which are not too thick can also be diffused, to a small extent, in the water of which new mush is to be made. Fried mush is indigestible, in so far as grease is fried into it, and is therefore to be avoided. It can be sliced and browned on a griddle, with barely oil enough to prevent its sticking. Most mushes can be served cold very satisfactorily in warm weather. In the New York dairies mushes are generally preferred cold by the customers.

Canned Fruit.—This should be the main dependence at this season of the year. Those who are wise use their dried fruits with the fresh, while the latter can be had, and then the canned fruits will be in order for these warm spring days, when the more exacting appetite requires fresher and more delicate viands. Nearly, if not quite, all canned fruit is better if scalded and sweetened (if necessary) and the sugar cooked in before using, and in doing this the more delicate fruits should be cooked as little as possible. No fruits should remain open long, for they will spoil just as quick as fresh fruit under the same circumstances.

Dried Fruits.—If it be necessary to use these, they should be prepared with great care. It is a great advantage to get those that are so clean as to require no washing. Cherries and raspberries, and all the more juicy fruits, lose much by washing. All kinds, however, should be looked over carefully and put to cook in cold water, using earthen or porcelain-lined utensils. Cook very gently, never letting them boil up so as to fill the air with their odor, for what is dispelled in the air is lost to the taste. Stir as little as possible while cooking. If there is danger of burning, remove to a place less hot. Add water from time to time, if necessary. The fruit should be well filled with it when done, clear, but not thin and watery, and the fruit should not be messed. The stirless cooking is indispensable to this. When nearly done add the requisite amount of sugar.

It is well to observe the proportions of sugar and water put with the fruit until the best results are obtained, and then make a note of them for subsequent use. No sufficient general rule can be given here, for the proportions will vary with the different fruits, and with different specimens of the same fruit. Further, I find no special advantage in soaking fruits before cooking. Often there is a disadvantage, as they break and become messy more readily.

Dried Apples are greatly improved when cooked in the above manner. They should, when done, stand out in well-defined shapes in a clear juice. It is much easier to cook apples thus which are quartered than those which are sliced; therefore I always prefer the former, notwithstanding the prestige which the latter have obtained in the market.

The Banana.—This is a fruit much prized in the region of its growth. Some are cooked and others are eaten raw. The kinds sent to us are always shipped green and left to ripen on the way, so that we never get them in their best condition. Still, it is not so unwholesome as many things we eat. The banana is not so sprightly and juicy as many kinds of fruit, but it improves on acquaintance. Frederika Bremer said, that in eating bananas in Palestine, she was reminded at first of putting her teeth into soap, but she soon became very fond of them. Bananas are more nutritious than many other kinds of fruit, and a large one makes quite an effective lunch for the belated business man, and for the lady out shopping, who make a point of eating at regular hours, and can find at hand no hygienic restaurant. Care should be taken to select such as are not decayed. For the table it may be served whole at dessert, but for a cut fruit it requires some dressing.

Dressed Bananas.—They can be simply peeled and sliced, and dressed with sugar dissolved in water to the taste, letting them stand a few hours to impart their flavor to the dressing. It is an improvement to add a little lemon juice, using about half a lemon to one dozen bananas. But a far better dressing consists of the juice of oranges sweetened and poured over the sliced bananas, using four oranges, a gill of water, and a gill of sugar to one dozen bananas. Let it stand three or four hours before using, and stir before dishing, but not enough to break the slices. This is a happy combination of flavors. As the season advances and oranges become scarce, substitute the juice of pine-apples. These are somewhat expensive dishes, but they are delicate and delicious.

HOUSE-WORK HINTS.

A good white cement for broken china is a very thick solution of gum arabic, dissolved in water, stirred in with plaster of Paris until the mixture becomes a sticky paste. Apply with a brush to the broken edges, stick them together, and in three days the article cannot be broken in the same place.

To take out tar, paint, rosin, etc., from either linen or woolen, pour a little alcohol on the place and let it soak half an hour, and rub gently.

To keep the hands from chapping, use white castile soap, and always, after washing, dry and rub thoroughly with a coarse towel. Sometimes the use of a little pulverized corn starch will absorb the moisture, and prove beneficial.

Boiling hot water should not be poured on china, or other dishes, as it cracks the enamel, and in time will surely break them.

Turnips and beets used at this season should be covered with cold water before peeling or cutting, and stand for an hour before boiling.

Cold starch should not be made too stiff, or undissolved portions will adhere to the garments. If of the right consistency, the article will look as if wrung out of water. Roll tightly, and let it lie for

two hours. It will then iron as easily as if boiled starch had been used, and take much less.

Oilcloths, if well rubbed with a woolen cloth and warm water, with the addition of a little skim-milk, if convenient, will look nearly as fresh as new. Scrubbing brushes and strong soap are ruinous to them.

Never use soda or lime in washing clothes. They are certain to rot them in time. Borax is the only safe article.

To remove rust from sad-irons, or polishing irons, rub rapidly while warm on a board thickly sprinkled with fine salt. To remove starch, scrape thoroughly, rub with beeswax, and wipe clean.

To clean paint, rub well with whitening moistened with water, applying it with a woolen cloth, and wash with clean water.

Never put a particle of soap on silverware, if you would have it retain its lustre. Soap-suds make it look like pewter.

Stove lustre, when mixed with turpentine, and applied in the usual manner, is blacker, more glossy and enduring than when mixed with any other liquid. The turpentine prevents rust, and when applied to an old rusty stove, will make it look like new.

Keep soft-soap three months before using.

Bar soap should be kept in a dry place several weeks before using. It will last much longer.

USES OF WASTE PAPER.—A writer in one of our exchanges (we have forgotten which) says that few housekeepers are aware of the many uses to which waste paper may be put. After a stove has been blacked, it can be kept looking well for a long time by rubbing it with paper every morning. Rubbing it with paper is a much nicer way of keeping the outside of a tea-kettle clean than the old way of washing it in suds. Rubbing them with paper is also the best way of polishing knives and tin ware after scouring them. If a little soap be held on the paper in rubbing tin ware and spoons, they shine like new silver. For polishing mirrors, windows, lamp chimneys, etc., paper is better than dry cloth. Preserves and pickles keep much better if brown paper instead of cloth is tied over the jar. Canned fruit is not apt to mould if a piece of writing paper, cut to fit each can, is laid directly upon the fruit. Paper is much better to put under carpets than straw. It is thinner, warmer and makes less noise when one walks over it. Two thicknesses of paper placed between the other coverings on a bed are as warm as a quilt. If it is necessary to step upon a chair, always lay a paper upon it, and thus save the paint and wood-work from damage.

PLANT OFTEN.—One of the best rules the farmer or gardener can follow to insure success in getting a good stand of tender crops, is to plant often. Take, for example, melons, squashes, cucumbers, lima beans, and such other products

as may be desirable to start early, and which often fail when planted early, and apply the rule at the head of this article, and success would be certain. Fit your ground early; make broad, rich, flat hills, slightly crowning, to insure dryness and gain warmth. Then plant early in the season, and one week later put down a few more seeds in the hills with the thumb and fingers; a week later repeat the planting, and if the season be particularly cold and backward, and the first plantings do not appear, a fourth may be necessary. By this method success is rendered certain; but little time is lost, for the later plantings will grow so fast as to overtake the first. At the proper time thinning must be done, and the crop is then handsomely started on its journey.—*Rural Home*.

EARLY SOWING.—A few bright, warm days in April are sufficient to bring on an attack of the planting fever. The garden must be spaded or plowed, beds laid off, and in go the beets, carrots, parsnips, turnips, etc. They find cold beds; the soil is packed over them by repeated heavy rains; many of the seeds rot outright, or the slender germs fail to lift the heavy soil pressing upon them. It is far better to leave off sowing until the soil is warm and dry. A few of the hardy plants, such as early peas, potatoes, onions, lettuce, radishes, spinach, etc., may be put in to advantage, perhaps, during the month of April, but it is better to wait for the main crop sufficiently long to allow the earth to become dry, and somewhat warm before planting. Seeds will then come up quickly and grow rapidly, and every one knows that a quickly grown vegetable is far better than one which it has taken a whole season to mature. Beets for late Fall and Winter use will be best when sown as late as even the first or middle of June.

GLADIOLAS.—These are tender bulbous plants, which produce flowers with a great variety of tints; very showy, formed into spikes of from twelve to twenty flowers each. The bulbs should be planted in sandy loam, enriched with leaf mould and peat, if these can be obtained, in the open ground in the Spring. Some should be planted as soon as all danger of frost is past; then, by planting additional ones every ten days, you will have a succession of flowers which must prove very satisfactory. They multiply fast, and a little beginning will soon give you a large stock. It is best to grow them in beds, planting them about three inches deep and six inches apart each way. They should be supported by tying to stakes as they may need it. In a dry Summer, they will pay well for moistening. —

TO MAKE OLD SEEDS SPROUT.—The *English Repertory of Patent Invention* says that oxalic acid, in solution, will revive the vitality in seeds, so that those thirty or forty years old may be made to grow. Soak the seed for one or two days in oxalic acid, dissolved in water, till they

begin to sprout; then plant immediately. Count Von Sternberg, of Germany, caused grains of wheat, 2,500 years old, that were taken from Egyptian tombs, to grow and produce seed by first soaking them in fatty oils.—*Landreth's Rural Register*.

BEAUTIFY YOUR PREMISES.—Every person who owns a foot of land, or has the use of a southern wall whereon to let a vine creep, and lets May or June go by without adding something to beautify it, should be considered remiss of a very great duty. Even if you do not own the house you occupy, still plant flowers and vines and shrubbery for your own comfort and heart's sake.

"Let flowers look up in every place
Through this beautiful world of ours,
For dear as the smile of an old friend's face,
Is the smile of bright, sweet flowers."

Timely steps must be taken now, and remove all the objectionable objects that may have gathered during the Winter. The ground to be devoted to floral culture should be decided upon, and you must know what plants to cultivate to give the best satisfaction, and how to prepare the soil for each properly.

THE LILY OF THE VALLEY.—No garden is complete without these. Their purity and fragrance are peculiarly their own. There are single and double varieties; the last named are the most common. They require but little care, and will grow for years in the same bed, and will continue to blossom finely. They flourish best in the shade, where the soil is moist and rich; are perfectly hardy, requiring no protection in the coldest Winter.

HOUSE VERMIN.—Cockroaches are the plague of many housekeepers, and yet a little Paris green is death to them. Keep it in a common flour dredging box, label it Poison, and apply it weekly to their haunts. Red bugs or chinch bugs may also be dispersed and utterly routed, with this remedy; and both cockroaches and bed bugs will flee from powdered borax. Travelers should always carry a paper of borax in their bags, and sprinkle it under and over their pillows, if they fear they shall become food to the last named wretches. Sprigs of wormwood will drive away large black ants; and none of them, whether black, brown or red, relish wintergreen, tansy, Paris green, cayenne or kerosene; so if they invade our pantries we can, by a judicious application of some one of these articles, make the premises too unpleasant for them. Fly paper should be kept around the house as early as the middle of May. Put it in every open window, and thus destroy every intruder.—*Country Gentleman*.

TRIMMING RASPBERRIES.—Cut out the canes which have borne fruit last year, and prune the new canes, or those of last year's growth, to about four feet high. In the Spring, the canes should be trained to a stake, and not be allowed to bend over or hang down.

ADVICE TO PAINTERS—EFFECTS OF HAIR DYES.—*Hearth and Home* quotes Dr. Thomas Watson, a very eminent authority, who, in his "Principles and Practice of Physic," gives a number of directions to the workers in lead as to the avoidance of lead poisoning. Clearly he was of the opinion that lead in dangerous quantities might be absorbed through the skin, inasmuch as he puts his caution against its introduction in this particular way. He says:

"To prevent its introduction through the skin, much attention to cleanliness is necessary. The face and hands should be washed, the mouth rinsed, and the hair combed several times in the day; and bathing and ablution of the whole body should be frequently performed; also the working clothes should not be made of woolen, but of strong compact linen, and they should be washed once or twice a week at least, and they should be worn as little as possible out of the workshop, and some light, impervious cap might protect the head while the person is at work."

Every tolerably well-educated physician is familiar with the absorbing power of the skin. Both his books and his experience teach him the fact, and if one really does doubt it, he may readily convince himself by sprinkling his body, when in a perspiration, with calomel. If he does not find himself thoroughly salivated in due time, then is he singularly mercury-proof.

HAIR DYES.—We know very few physicians who have not treated cases of disease clearly traceable to their use. Nearly every one of them knows of a death or two as the result, while they count the cases of paralysis which have come from this one cause by the dozen or score. The New York Board of Health took the trouble a year or two ago to warn people against the danger corked up in hair-dye bottles. The chief medical officer of the Brooklyn Life Insurance Company tells us that a few years ago that company paid a policy on the life of a man who killed himself by dyeing his hair, as a *post mortem* examination clearly demonstrated.

HOW LONG SHALL WE SLEEP?—The fact is, that as life becomes concentrated, and its pursuits more eager, short sleep and early rising becomes impossible. We take more sleep than our ancestors, we take more because we want more. Six hours' sleep will do very well for a plowman or a bricklayer, or any other man who has no exhaustion but that produced by manual labor, and the sooner he takes it after his labor is over, the better. But for a man whose labor is mental, the stress of work is on his brain and nervous system, and for him who is tired in the evening with a day of mental application, neither early to bed nor early to rise is wholesome. He needs letting down to the level of repose. The longer the interval between the active use of the brain and his retirement to bed, the better his chance for sleep and refreshment. To him an hour after midnight is probably as good as two hours before it, and

even then his sleep will not so completely and quickly restore him as it will his neighbor who is physically tired. He must not only go to bed later, but lie longer. His best sleep probably lies in the early morning hours, when all the nervous excitement has passed away, and he is in absolute rest.

HOW TO PRESERVE A BOUQUET.—When you receive a bouquet, sprinkle it lightly with fresh water; then put it into a vessel containing some soapsuds, which nourish the roots and keep the flowers as good as new. Take the bouquet out of the suds every morning, and lay it sideways in fresh water, the stock entering first into the water; keep it there a minute or two, then take it out, and sprinkle the flowers lightly by the hand with pure water. Replace the bouquet in the soapsuds and the flowers will bloom as fresh as when gathered. The soapsuds need to be changed every third day. By observing these rules, a bouquet may be kept bright and beautiful for at least one month, and will last longer in a very passable state; but the attention to the fair but frail creatures, as directed above, must be strictly observed, or "the last rose of summer" will not be "left blooming alone," but will perish.

—*American Artisan.*

SOAKING SEED IN DRY TIMES.—This is practiced to a considerable extent, but we have observed that it is a risky operation, unless particular attention is paid to putting the soil in suitable condition. A soaked seed in dry and lumpy soil is almost sure to perish if the drought is prolonged. The dry earth and the air in the crevices around the germ extract the moisture before the roots form and begin to absorb food from the soil. But if the soil is well pulverized, so that its natural condition is somewhat moist, and the seed is then covered pretty deep, it will usually live. Those who endeavor to hasten growth by soaking the seed previous to planting, should take care to use the roller and harrow without stint.

—*Rural Home.*

CLEANING PAINTED SURFACES UNVARNISHED.—Put upon a plate some of the best whitening, have ready some clean water and a piece of flannel, which dip into the water and squeeze dry, then take as much whitening as will adhere to it, and apply it to the painted surface, when a little rubbing will instantly remove any dirt or grease; wash well off with water and rub dry with a soft cloth. Printed articles thus cleaned look equal to new, and without doing the least injury to the most delicate color; it will preserve the paint much longer than if cleaned with soap, and does not require more than half the time usually occupied in cleaning.

WHEN you go into a new country don't be too smart. Listen and watch and find out how things are done, and be careful not to insist on your own way. The farmers of every section have, as a general thing, good reasons for their practices.



MONTHLY,
\$2.00 year.

NEW YORK, MAY, 1874.

SINGLE No
20 cents.

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

SPRING MALADIES.

IN the olden time, as some of our readers may remember, the opinion generally prevailed that, as the thermometer rose above the degree marked temperate, and lighter clothing became comfortable, something must be done to purify the blood. But, unfortunately, the means then usually resorted to, do not command the admiration of a modern hygienist. They were, bleeding and salts, calomel and jalap, and pills innumerable. There was, however, a basic truth in the idea that the more sedentary and indoor habits of the cold season, and the still worse habit of extra hydro-carbonaceous feeding—butter, sugar, lard, pork, gravy, etc., occasioned obstructions of the excretory organs—the liver, skin, kidneys, bowels, and lungs, rendering special attention to the general depurating function expedient. But, thanks to the health educators of the race, the people are rapidly learning better preventives of disease than the causes of disease, and better remedies than poisonous drugs.

Few persons seem to be aware that the whole range of maladies which are more prevalent in early spring are attributable to personal habits. And very few physicians ever intimate, if they are aware, that what the people eat and drink during the winter is the most efficient cause of what they suffer during the summer. The preventive measures, therefore, may

all be summed up in the words, wholesome regimen.

But when the spring maladies appear, whether in the shape of humors, boils, catarrh, influenza, epizooty, pneumonia, rheumatism, erysipelas, sick-headache, etc., "Do thyself no harm." Take no drug stuff. Lose no blood. Submit to no blistering. Neither vomit nor purge. Sweat not. Swallow no hard cider. Do not even bother with herb tea. But bathe daily, diet abstemiously, exercise moderately, prefer vegetable food, drink only water, eschew seasonings, give nature a chance. These terrible ailments, for which so many are drugged to death every spring of every year, are manifestations of a remedial process—an effort of the vital organism to rid itself of noxious matters. Do not thwart this process, nor arrest it, nor suppress it, nor kill it, nor cure it. But favor it in all possible ways, that purification may be complete and restoration to health perfect.

OPENINGS FOR HYGEIAN HOMES.

A DEMAND has sprung up, within a year or two, for additional accommodations, in all parts of the country, for hygienic living, and for hygienic treatment. There are scores of sensible people in every State, who are tired of the fashionable folly and dissipation seen in hotels, at most of the Summer resorts, and they are seeking places where rest, recreation

and recuperation may be attained near home, and at moderate cost. Nearly all the States have localities or openings well suited to such homes. The mountains of all the New England States abound with pure, soft water, a salubrious atmosphere, and all the conditions favorable for health resorts and hygeian homes. It is the same in the Middle States. Indeed, we could name a hundred eligible places in New York, Pennsylvania, New Jersey, Delaware, Maryland and the Virginias, where attractive homes could be established for the health and profit of the people in all the regions round about. In the North we already have a number of such cures, where proprietors have, in a few years, become rich. There are several of this class in the State of New York; two or three in Ohio; one or two in Michigan. What the people need is not larger, or more expensive concerns, but more of those of moderate dimensions, and with less expensive accommodations. Hundreds of patients, with moderate means, would be glad to spend a season at a health institution, where a few dollars a week would pay for board and treatment. Such are shut out of the larger concerns, where the "aristocratic" find special favor.

There ought to be a dozen hygeian homes in Illinois, Indiana, Missouri, Tennessee, Arkansas, Minnesota, Wisconsin, Kansas, and especially in all the States South; the Carolinas, Georgia, Alabama, Florida, Louisiana and Texas. Each would furnish guests enough to fill them, while visitors from other States would flock thither as the seasons change. The great Territories, embracing the Rocky Mountain regions, will all become resorts, not only for sight-seers, but also for invalids. And they will all, with rare exceptions, be benefited by spending a season or more therein. Many will go to California, Oregon, Washington

Territory, and come home completely rejuvenated. Some, no doubt, will go too late to be benefited; but, as a rule, such changes will prove healthful.

In selecting a resting-place, whether for hygienic living or treatment, one should secure, first, a high, dry, and pure atmosphere, away from all malarial poisons; where pure water abounds, and where healthful food may be procured. Hog and hominy, with green tea and thick black coffee, and strong-yellow-saleratus-fine-flour-bread — won't do. The scenery should be beautiful, grand, inspiring; away from swamps, fogs, and too much muck. These will do on which to grow flags, rushes and bull-frogs, but they are not the places on which to raise babies, and healthy men and women. One objection to the old fashionable water-cure establishments was, that we met only moping, limping, whining invalids in the house, on the walks, in the bath-rooms, everywhere. When two old chronic cases met, it was ludicrous to hear each try to outdo the other in relating his numberless aches and pains. We shall never forget an incident of this sort; when two aged invalids, of opposite sexes, engaged in a discussion of the comparative number and degree of diseases and infirmities each had enjoyed; (?) when the old lady, with one hand over her heart, and the other somewhat lower down, nonplussed the old gentleman by naming several complaints which, in consequence of his sex, he could not have suffered. He got over this, however, by remarking, "If I had been a woman, there is no doubt I should have had the same."

But, there is no use or sense in an invalid's being always unhappy. Let him be cheerful, and thankful matters are no worse. Let him hope he may soon be better, and the very hoping will prove remedial. Oh, but, "suppose he is very sick?" All the more necessity for hope:

and pluck. And if he be *dying*, let it be thanking God he had lived so long. But we are digressing. Let health reformers seek out the most attractive places in every County and State, and then invite capitalists to erect suitable buildings for the accommodation of guests and patients who wish to gain health, and learn how to live according to hygienic principles. This would be one way to destroy the trade of the quacks, lessen the use of poisonous drugs, teach true temperance in all things, and be the means of prolonging the lives of thousands who would else go down to premature graves. The time has come for action in this matter, and they who move first will reap the richest harvest of thanks and gratitude for their good work.

"YOU MUST DO SOMETHING."

IMPATIENT men and meddlesome women will not be quiet and let nature take her course, but are constantly tampering or tinkering with their stomachs, livers, kidneys, or other "inwards," till they get the machine out of running order, whereas, if they would let it alone for a time, it would right itself. Every old granny one meets, whether in petticoats or in trousers, delights in experimenting on one's "bowels" with his or her "sartin remedies" for any fancied complaint. Have you had a back-ache, side-ache, head-ache, or the belly-ache, so has he or she, and "had it bad." And the worse they had it, the better they seem to like it. You can name no ache, pain, or infirmity, that they have not had "the very worst way." This is the class who are "never so happy as when most miserable." They are always "dosing and doctoring." If it were not for their continued meddling, they would soon be well. But in their ignorance they believe in "having something to take," and they swallow the stuff advertised by quacks in

the newspapers. They "try" a few bottles or boxes of every new remedy. Then, getting no better, conclude they have taken the wrong thing, and, of course, must try something else. "*They must take something.*" And so they go on fooling all through their miserable existence.

In nine out of ten of these cases the thing to do is to keep quiet, stop tinkering, and leave nature to regulate the machinery in her own good time and way. "Dr. Diet, Dr. Quiet, and Dr. Merryman" are said to be our best physicians.

Is the patient feverish, what can be more grateful or more remedial than a wet-sheet pack, and then a quiet night's sleep and rest? Is he cold or aguey, give him a warm—bath a sweat, if necessary, and then, after washing off, put him to bed for a little while. Don't dose or stuff the stomach; let *that* also have rest.

No matter what be the cause of illness, the simplest treatment is always the best. Swallowing poisons never did any body any good; and the sooner we give up the foolish habit of dosing, the better. We repeat, that in most cases of bodily derangement, the best thing to do is to do nothing. Then the grannies, the quacks, and the drug doctors will do no harm.

LECTURES TO LADIES BY LADIES.

Now that we have medical colleges, in which women are equally educated in all the branches taught in the best medical schools, it is meet that ladies enter the lecture field and instruct their sisters concerning sundry matters most essential for them to know.

Hitherto only men—sometimes men without taste, refinement, or moral principles—have intruded their coarseness upon women, under the guise of "popular lectures to ladies *only*," on anatomy, physiology, etc. Then they bring forward their patent medicines and other traps to sell.

These same coarse creature have much to say about "sexual science," and exhibit models and drawings, which excite idle or prurient curiosity, instead of teaching the first principle of science. We are in favor of the equal education of the sexes; and maintain that whatever is true and useful, whatever is proper for man to know, is equally proper for woman to know. But there is a propriety in women becoming the teachers of women, especially on those subjects which concern themselves so vitally. By the aid of physiological plates, maps, manikins, etc., the dissecting room can be brought home in lectures to every one who may wish for information on these subjects.

Women write books, edit magazines and newspapers; they teach school, preach the gospel, treat and nurse the sick; manage asylums, hospitals, prisons, and other institutions, public and private; then why may they not be qualified to lecture, and to teach physiology, anatomy, hygiene, etc.? She may and she will continue to do so, to her own profit

and to the enlightenment of the race. We want to-day, in America, ten thousand educated and capable lady lecturers in the field to instruct the people, especially women and children, on the LAWS OF HEALTH. Every lady school-teacher ought to understand Hygiene, and teach it. She ought to be qualified to lecture on it in her school, and before the public. Indeed, without this particular knowledge, she is not fit to be intrusted with the health and life of children. With it, she would look after ventilation, exercise of body, temperature, clothing, and other healthful conditions.

We wish all our normal schools would employ lady physicians to instruct the out-coming teachers on these all-important points. But we must be patient. Public sentiment is forming, and is more and more favorable to the cause of Health Reform. Medical colleges are now open to women, and all things are progressing in the right direction. Let us be content to "go slow" when it be for the enlightenment and elevation of the race.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

SHALL WE SIT OR STAND WHILE EATING?—"Would our food digest more readily, were we in the habit of standing, rather than sitting while eating, as has ever been the custom?"

The earliest experience of nearly all the human race is, that reclining is a good position in which to take nourishment. If there is any objection to it, we have not heard it. For the first half year of life that is considered the best, if not the only method. In the days of Jewish history, as late as the time of Christ, it was customary for the people to recline while eating. Sitting, therefore, is perhaps the modern method. We cannot see why the erect posture sitting, is not just as healthful as an erect posture standing would be; in fact, the easier one can be while eating, the more restful, so far as the body is concerned, the better. Nearly all animals, while eating, are as quiet as may be, and, for the most part, mature animals, when fed, seem to like to take a rest, or a *siesta*, after

eating. When one eats, his nervous energy should be diverted from the stomach as little as may be. If one stands or walks while eating, or is laboring, the stomach does its work less perfectly, than if all the nervous energy were permitted to be concentrated upon the functions of eating and digestion. Dogs have been put on the track immediately after being well fed, and four hours after they were killed, and the meat was found almost entire in the stomach as when eaten, undigested; while dogs of the same pack, at the same time fed the same quantity, and permitted to rest and sleep during the four hours, on being killed it was found that *their* stomachs were empty. Digestion had been complete. Therefore, we advise our friend to have as easy a chair, and sit as quietly during his meals, as may be. In the little book recently published at this office, entitled "Digestion and Dyspepsia," much very useful information concerning the whole question is given.

ASTHMA.—F. T. H.—“I am thirty-five years old; have had asthma, more or less, since fifteen or sixteen years of age; have not had to sit up nights for six or eight years. Is there any particular diet for such cases? What do you think of cider as a drink, especially for a corpulent man nearly sixty? Coughs and raises. Some days not able to go to his shop. I use neither liquors or tobacco, and very little tea or coffee. Am not able to work much. When I am not troubled to breathe, apt to feel nervous; and if I talk or exercise a good deal, may not sleep more than two or three hours. Awake between one and two o'clock, or later.”

You have enlargement of the liver, and probably also of the spleen. Cider is bad for all persons, sick or well. No particular diet is necessary, only have it plain in quality and moderate in quantity.

MEAT vs. A VEGETABLE DIET.—“*Jacksonville, Fla.*—The following lines appeared in *The Scientific American*, Vol. XXX., No. 11: ‘In a French industrial, employing 360 men, chiefly vegetarians, the sick-fund was constantly in debt. By the introduction of meat into the food of the men, the average loss of time per man, on account of illness or fatigue, was reduced from fifteen to three days per annum.’ Was it the introduction of meat into the food that reduced the illness? How does the Editor of *THE SCIENCE OF HEALTH* account for it? V. F. D.”

We do not account for such stories. But if we had all the facts we would try to do so. Probably the laborers were using a very improper vegetarian diet.

WHAT SHALL I EAT?—“I am troubled with dyspepsia, wind, and soreness through the bowels and kidneys, although they act very slow, and I think I ought to eat apples and other fruit, as I am very fond of them, but am afraid to do so. I used to eat a great deal without detriment. I am told to drink buttermilk, but did not know whether it would be good or not. I have been told to drink cold water on going to bed, and also the first thing in the morning, and I should like to have your advice on the matter. Also, whether sweet milk is better for a dyspeptic than tea or chocolate, as I know that coffee cannot be good.”

Drink nothing but water, and that only when thirsty. Get our work on “Digestion and Dyspepsia.”

A RED NOSE.—H. W. B.—“I am troubled with a red nose, and cannot conceive what the cause can be. The general saying is that it is a sign of intemperance; but certainly it cannot be true in my case, for I have seldom ever used anything but pure water as drink, and my diet is plain. It is not red at all times, but it is always red when I am out in the cold, but no more so than it is sometimes when I am in the house. Now, this is a ‘beauty spot’ that I do not like; and if, with your great experience and knowledge, you can give me any information as to the cause

and remedy, and will do so, you will confer a very great favor.”

Perhaps the difficulty is inherited. Adopt a strictly hygienic dietary, avoiding salt, sugar, and seasonings of every kind.

A TORPID LIVER.—P. G. F.—“My father, aged seventy-three years, has been in a state of declining health since last August. The first symptoms of disease were slight attacks of paralysis, followed by dyspepsia, from the latter of which he has recovered. He would often have dizziness, but at last lost all articulation of words for conversing. He cannot repeat, with sense, two consecutive conversational words, but can repeat all his prayers and some prose, without the omission of a syllable. He seems entirely helpless, and cannot ask for even a drink of water, so as to be properly understood, and prefers to die rather than remain in his present mysterious condition. As it seems to puzzle his attending physicians, I would feel greatly obliged could you give us any information on the subject.”

He is suffering of thick and viscid blood, the consequence of a torpid liver.

DROWNING.—“Why do persons, when drowning, rise to the surface twice before they go down the last time?”

In hundreds of cases persons go down and do not rise at all, until chemical fermentation creates gas in the body, thereby causing it to come to the surface, and to float. When persons struggle to keep above the surface, they sink from exhaustion; when beginning to strangle, they make a muscular effort which brings them to the surface. Fatigue, fright, or unconsciousness, may cause them to sink. Taking more water into the lungs will induce a struggle, and the effort may bring them to the surface a second time. The next time the lungs become filled with water, and the specific gravity of the body thereby becomes greater than the water, and it sinks, and remains down until gas has been formed in the body, which causes it then to rise to the surface.

MESMERISM—CLAIRVOYANCE.—“What are the chief points of difference between Mesmerism, animal magnetism, and clairvoyance?”

Animal magnetism, as discovered or practiced by Mesmer, induced people to call it Mesmerism—as forty years ago the treatment of disease with vegetable, instead of mineral, medicines, was called Thompsonianism, or as the name Calvinism was derived from Calvin, who taught the doctrine. Clairvoyance, meaning clear seeing, is supposed to be a step beyond animal magnetism. One may be magnetized, and lose all consciousness to pain, and not be clairvoyant. The “Library of Mesmerism and Psychology,” published at this office, in one volume, explains the whole subject.

NERVOUS SICK HEADACHE.—“Napa

Valley, Cal.:—ED. SCIENCE OF HEALTH.—Will you kindly give me directions how to cure nervous sick headache? Sometimes the pain will be entirely in the head; at other times it will settle in the eyes. I have been subject to this for several years, and as they come harder and more frequently, I think it time to try and cure them. Have excellent health in other respects; live plainly, but not entirely hygienically."

A diseased liver is the cause of your trouble. Take a tepid ablution twice a week, a moderately warm hip-bath daily, and avoid all constipating and greasy food.

TROUBLE—DISEASE.—"Will trouble cause disease?" Yes; if we permit it. It drives one to madness, another to the grave. "What is the remedy?" One must not permit trouble to trouble him. Don't fret; seek "peace."

"Should a person eat when in a state of great excitement?" No, not if he can "cool off," and go slow, before starvation overtakes him. Nor should one eat when angry. Nor should one remain angry over long, lest he become morose, crabbed, sour.

INFLAMMATORY RHEUMATISM.—C. H. C.—"I have a friend that has just recovered from the inflammatory rheumatism. I see recommended in the "Hygienic Hand-Book," the use of cold water and the wet-sheet pack. They had a physician, and asked him about the cold water, he said it would drive it to the heart. Please inform us through THE SCIENCE OF HEALTH, and oblige."

There is no truth in the statement of the medical gentleman. Either he does not know anything about the matter, or he tells a willful—mistake.

SASSAFRAS TEA.—O. P.—"It is often said, by the old women, that sassafras tea is healthy, and we once heard a learned M.D. say so. Will you please give your opinion in THE SCIENCE OF HEALTH? Some of my neighbors use it through the month of March."

It is unwholesome.

TAPE-WORM.—A. C. H.—"Please give cause and remedy for tape-worm."

The cause is gross or impure food, and the remedy Hygienic diet.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

WHAT CAN WOMAN DO?—Christ commanded His disciples not only to preach the Gospel, but also to heal the sick. We rejoice to find the clergy of to-day lending a helping hand, and encouraging those who would teach physiology as well as theology. Churches are opened to lecturers, and the most important sort of knowledge is disseminated among the people. Here is a copy of a circular, which shows what is going on among the women here in New York:

Woman for Woman. Practical Lessons in Physiology. By Mary J. Studley, M. D.

The Liberal Christian says: "Sorosism does some very sensible things. . . It has been giving a course of lectures on the 'Hygienic and Moral Influences of Dress.' These lectures have been given by ladies of acknowledged ability and influence, and have been marked by a real understanding of the subject."

In compliance with numerous requests from ladies who attended the above lectures, Dr. Studley has arranged for two courses of lessons for ladies, to be given as follows: At the Chapel of "Church of the Disciples," Rev. Geo. H. Hepworth, Pastor.

First Course—"The Physiology of Digestion," prominent causes of Dyspepsia; "The Physiology of the Chest Organs," their Freedom from the condition of Health, Comfort and Life; "The Physiology of the Nerves"—how to avoid Hysteria.

Second Course—"Physiology of Reproduction;" "Causes of Women's Diseases;" "Maternity the Glory of Womanhood." Course ticket, \$1. Single ticket, 50 cts.

Dr. Studley is a graduate of the "Woman's Medical College" of New York.

To DR. M. J. STUDLEY:

Madame,—At a regular meeting of "Sorosism,"

held to-day, the following preamble and resolution were unanimously adopted:

Whereas, The Course of Lectures on Dress-Reform, recently arranged and provided for by "Sorosism," has been delivered by Lady Physicians of high reputation and acknowledged talents, and

Whereas, The scientific, intelligent and dignified manner in which they treated the subject has made it popular and beneficial to women, therefore,

Resolved, That "Sorosism" hereby tenders a vote of thanks to Dr. M. J. Studley for her valuable assistance, so cheerfully rendered, and who, in her lectures, presented the subject in a manner so attractive as to disarm prejudice and create a new interest.

ALICE C. FLETCHER, Secretary.

[This indicates "progress and improvement."

We hope these ladies will find entrance into all the churches, and lecture to their sisters on the abominations of foolish fashion, and on all other sorts of quackery, fraud, and nonsense. They are—many of them—doing good service in temperance work; why not also in dress, fashion, diet, and common sense? Let women talk.]

A CONFIRMED DYSPYPTIC writes: "I have purchased two or three numbers of THE SCIENCE OF HEALTH from our newsdealer, from which I have learned some things which, if I had known twenty-five years ago, would have been worth thousands of dollars to me. To be brief, I am what doctors would call a confirmed dyspeptic, and have swallowed two or three drug-stores, and would have been dead long ago had I not quit taking strong medicines, every dose of which made

me worse. I have been dieting for a couple of years, and improving very slowly. Now, what I want is some proper instruction, that will start me in the narrow path of living right to get well. [He should read "Digestion and Dyspepsia."] My age is forty; I am of robust, long-lived parentage, and if life is to be prolonged, I hope for a state of health that will bring with it some pleasure. I shall continue to read *THE SCIENCE OF HEALTH*."

THE World notices, kindly, *THE SCIENCE OF HEALTH*, saying: "The editor has restrained his contributors from 'boring' readers with long articles. He has presented in the pages of *THE SCIENCE OF HEALTH* short articles, written in popular style, on important points in physiology and hygiene. The manifest tendency of the publication, from the very beginning, has been to discountenance medication, and to urge upon all persons the necessity of correct habits of life as the great safeguard against the inroads of disease. There can be no question that this is an important point to be attended to. An insane prejudice that physicians can kill and make alive, possesses the public mind. The first dogma to be constantly iterated and reiterated by a hygienic periodical is, that medication is wholly a secondary matter in the preservation of health, and that attendance to all the precepts of rational hygiene is a much more important consideration than this ever can be."

[*The World* is right, and the people begin to "see it" in this light. But the drug-doctors and the patent-medicine quacks have the ignorant masses by the throat and the pocket, and it will require earnest missionary work on the part of health reformers, to emancipate them from superstitious thralldom. But we begin to see daylight. Good lecturers and other workers are in the field. Voluntary missionaries are circulating health tracts and books among the people. New converts to the truth are coming over. Progress and improvement reward our efforts, gratitude fills our hearts.]

DRESS REFORM.—Several ladies in Vineland, N. J., have formed themselves into a society for the purpose of agitating and reforming the fashions. They ask women to organize, and sustain each other in a combined movement on the works of the enemy, that the sex may be emancipated from the thralldom of fuss, feathers, and foolish fashions.

A HOUSEHOLD NECESSITY.—A. G., writing from Elliott, California, says: "*THE SCIENCE OF HEALTH* has become a household necessity to our family. We have been much injured through medical quackery."

WHERE HEALTHY COUNTRY GIRLS MAY BE FOUND.—"In the November number of *THE SCIENCE OF HEALTH*, is an article on 'Sickly Country Girls.' There is the force of fitly spoken truth in what the author says, and her description

of dawdling do-nothings, reproduces to the life many a country girl of my own acquaintance. She wants to know if there is any such a being still in existence as the genuine country lady of the old school, 'hearty, bustling, cheerful, notable as a housekeeper, celebrated for her pies, preserves, and premium-taking good things at country fairs.' Whether there are any Di Vernons still in America—such strong, physically vigorous beauties as old Chaucer painted? I have been spending this past summer and fall in Richmond Co., North Carolina, a hill country, abounding in springs of purest water—a country productive of the greatest variety of choice fruit. Such pears, such peaches, such grapes, as grow there, are not excelled north, east, south or west! It is attainable by rail, the 'Carolina Central' connecting it with Wilmington, N. C., from which diverge 'through routes' to all the great centres. It is a corn and wheat country, corn-bread being a staple and standard dish on every table, morning, noon and night. There it was that I found girls well-bred and fairly educated, doing the work of the family—cooking, washing, scouring, and the family sewing. And what pictures of health they were! Sun-burned slightly, 'tis true, but oh, what roses in their cheeks! what beautifully moulded arms and dimpled elbows! What splendid chests—like Christine Nilsson's—and voices sweet as well-tuned harps. I could name a dozen *just such girls*—girls accounted first-class ladies, belonging to the best families in that part of the country, who milked the cows, and, upon occasion, could *cut wood*! These girls do not seem to dread poverty, are not at all set on making wealthy alliances; and I noticed that the beaux who had a reputation for thrift and industry, were altogether the most popular. Neither were specimens of healthy elderly ladies hard to find. There was my friend, Mrs. Eustace, who lived in town, sixty years old, and *very gray*, yet actually *robust*—no head-ache, no back-ache, quite well! She got up in the morning at daylight; gave out and superintended breakfast; followed her keys all day, seeing herself that every part of her large and elegant house was in perfect order; and all the business of the establishment went on more or less under her eye. Visiting the sick and poor in the afternoon, knitting in the evenings, while her son read aloud to her till her early bed-time, formed part of the routine of my friend's life, and had brought her comfortably through threescore years. In the culinary art my friend is a perfect success. Her dried fruit, cut very small and thin, is never wormy; her canned fruit, put up *without* sugar, never sours; and her preserves and pies have often taken premiums at fairs.

"Aunt Nancy" is a type of a somewhat different class, but an equally happy illustration of healthy, happy, useful old age. She is known far and near as the friend of the distressed; will go with equal promptitude to a poor, sick colored

man, or a little negro baby having fits; go and sit up, nurse, and practice the simple, efficient remedies of her pharmacopœia, take as hearty goodwill as if it were the richest of her neighbors. Aunt Nancy 'toddles' round all day. She will help about the cooking, help about the house-keeping, feed the chickens, take up the butter, and quite tire herself out by bed-time—nine o'clock—when she lies down and sleeps like a child. Aunt Nancy has a good appetite, but she eats plain food. Bless her heart! May she live long.

V. DU RANT COVINGTON."

QUACK MEDICINES IN RELIGIOUS NEWSPAPERS.—Sensible readers are beginning to discriminate. They will ere long insist on having a newspaper free from swindling quack advertisements, or they will drop the paper, as they ought. The minds of thousands are poisoned by reading quack advertisements in religious newspapers. Editors are opposed to it, while mercenary publishers continue the nuisance for the "lucre" it brings to their pockets. Here is an extract from a letter just received from Illinois:

*"Editor of Science of Health:—*To-day, in reading my religious paper, published in Chicago, I find the following sensible editorial note: 'A physician who advertises to cure consumption or cancer, is a quack and an impostor, and the editor of a religious paper knows it.' In the column directly opposite I find two advertisements, one beginning, 'Cancer can be cured,' etc., going on eloquently through two squares of the excellent advertising medium. Directly under it is an advertisement occupying the same space, headed conspicuously, 'A man of a thousand. A Consumptive cured when death was hourly expected, etc.' Now this is the result of editors of the religious press giving their advertisements into the hands of shrewd, avaricious agents, or gross neglect in not inspecting their advertising columns. In either case, are they innocent? Yours for consistency, E. B. R."

The Library.

THE EMPHATIC DIAGLOTT: OR, The New Testament in Greek and English. Containing the Original Greek Text of the New Testament, with an Interlineary Word-for-word English Translation. By BENJ. WILSON. Cloth, \$4; in extra fine binding, \$5. S. R. Wells, Publisher, New York.

The Sword and Trowel, a magazine edited by Rev. C. H. Spurgeon, and published in London, says: "It deserves to hold a place in the first rank of the many valuable works that have issued from the American religious press. The idea is excellent, and the execution leaves little to be desired. It bears evidence of painstaking study and work, and of careful and accurate scholarship, and we learn with surprise that it is the product of but seven years' labor. The author speaks of 'slow progress,' but the wonder to us is that what is in many respects a truly great work should have been completed in so short a time. The principal features which distinguish this from other modern versions of the New Testament are the 'In-

terlineary Word-for-Word English Translation,' and the 'Signs of Emphasis.' Of the Interlineary Translation it would be difficult to speak too highly. It is well and carefully and faithfully executed, and is calculated to be very useful, not to those only who are unacquainted with Greek, but to all save the profoundest scholars, who are almost as familiar with the languages of the Bible as with their own mother tongue. We extend to the 'Emphatic Diaglott' our hearty welcome, and should be glad to know that it occupied a place, not in the bookcase, but beside the desk of every divinity-student and every preacher of the gospel."

[The Emphatic Diaglott is no less useful to editors and to Sunday-school teachers. We appreciate the above hearty indorsement from Mr. Spurgeon's magazine, the *London Sword and Trowel*. Of American testimonials, we have many from leading clergymen of different churches.]

Among recent publications, the following will attract readers:

HEAT AS A SOURCE OF POWER. With applications of general principles to the Construction of Steam Generators. An introduction to the study of Heat Engines. By W. P. Trowbridge, Prof. of Engineering in Yale College. 8vo, cloth, \$3.50. The author incorporates in his work the new discoveries in science, and gives us the latest and best discussions on the subject.

THE NATURE OF GUN-SHOT WOUNDS OF THE ABDOMEN, AND THEIR TREATMENT. Based on a Review of the case of the late James Fisk, Jr., in its Medico-Legal Aspects. By Eugene Peugnet, M.D. 8vo, 96 pp., cloth, \$1.25. According to the testimony in this case, it appears that though Fisk would probably have died from the shot, his death was hastened by alcohol, poisonous drugs, and the ugly probe. Let the discussion go on, if anything can be learned by it.

THE DISEASES OF THE EAR: their Nature, Diagnosis, and Treatment. With a supplement by James Hinton, M.D. By Joseph Tounbée, F.R.S. 8vo, 466 pp., cloth, \$5. Hitherto, quacks have had this field; we are glad to note a really scientific work on the subject.

SEX AND EDUCATION. A reply to Dr. E. H. Clarke's "Sex in Education." Edited, with an introduction, by Mrs. Julia Ward Howe. 16mo, cloth, \$1. We are much obliged to Dr. Clarke for stirring up this subject. But the women will "have the last word," and gain the day. Mrs. Howe writes with a clear quill, and puts holy unction into her statements.

WOMEN BEFORE THE LAW. By John Proffatt, LL.B. Putnam's Popular Manuals. 12mo, cloth, \$1; extra cloth, \$1.25. Equality in rights, privileges, and in the pursuit of happiness will be insisted on by all intelligent human beings. He who denies this right is unfair, unkind, unjust.

NEW MUSIC.

WHETHER the times be hard or soft, whether it be cold or warm, people will, nay, *must*, have music—except the Quakers, who ignore one of God's good gifts. Here are sacred and secular pieces with prices, just issued: Saviour When in Dust to Thee, D. D. Wood, 25 cents; A Dream of Spring, Mack, air and variations, 50 cents; Evening Bells, Grebel, choice mazurka, 40 cents; Moonlight Meditation, Warren, nocturne, 50 cents; Dream of Happy Days, Dittmars, polka, 40 cents; Where Birds Sing the Sweetest, song and chorus, Danks, 35 cents; There is Nothing Like your own Little Home, song and chorus, Fuller, 30 cents; Mendelssohn's Songs Without Words, No. 34, 30 cents, No. 3, 35 cents; Please God Make Room, etc., song and chorus, White, 40 cents; Mother, Fold Me in your Arms, song and chorus, White, 40 cents; I Cannot Sing the Old Songs, Claribel, song, 30 cents; Oh! We are Merry Mountaineers, 5 cents; Whispers from Home, Nish, song and chorus, 25 cents; Sing to Me Softly, My Sister, Waterman, 30 cents; Nobody Home but Me, Violetta, 30 cents; Come Again, Bright Days, song and chorus, Blake, 40 cents. Order from this office.

Our Puzzle Column.

A BIBLICAL ENIGMA.—58 letters.—37, 43, 41, 53, where were twelve wells of water and seventy palm-trees.

44, 8, 53, 4, 2, 41, 34, the capital of the kingdom of Israel—sometimes used for the whole kingdom.

2, 13, 53, 49, 5, 16, 1, 21, 47, 3, 32, 54, one of the six cities of refuge appointed by Joshua.

2, 21, 23, 11, 53, 46, 20, the place from which started the twelve men, one man from each tribe, when they went "to spy out the land."

6, 23, 41, 31, 21, 44, 15, 21, 43, 7, 44, supposed to have been descended from Ham. They were subdued by 36, 46, 26, 41, 54.

9, 7, 36, 2, 25, 53, a famous rivulet of Palestine.

22, 46, 2, 53, 14, 34, noted as the retreat of the prophet Elijah, and in later days for its monks.

2, 41, 13, 10, 2, 33, 50, 57, 43, 30, 6, 39, a scriptural name for the Nile.

34, 44, 41, 12, where most of the places mentioned in Genesis are situated.

From that time, 52, 1, 18, 6, 55, and the country lying between it and 5, 11, 17, 31, 4, 37, 35, 51, 22, 8, 35, 34, 8, 53, were the scenes of most of the transactions recorded by Moses.

The mount near which many died of the bites of fiery serpents, 23, 49, 2.

44, 56, 21, 31, 25, 45, where the Ark of the covenant remained from before the death of Joshua to the time of Elisha.

On the 19, 27, 44, 23, of 12, 44, 40, 52, 2, were the cities of Tyre and Sidon.

33, 21, 24, 36, 10, 2, 53, 27, 44, 44, where the Israelites were first fed with manna.

The whole is a verse of the Psalms.

ISABEL.

A DROP-LETTER, FROM MRS. SIGOURNEY.

"Th-nk-st th--th-m-n wh-s-m-n-s-h-l-d

Th-w-rld-ng's pr-d, th-m-s-r's g-l-d,

-bt-n-s-r-ch-r pr-z

Th-n h-wh--n h-s-c-t, -t-r-st,

F-n-ds h--v-nly p-c--w-ll-ng g--st,

-nd b--rs th--rn-st-n h-s-br-st

-f th-s-r-n th-sk-s."

Z.

SIX BURIED TOWNS OF NEW ENGLAND.

When did you purchase this handsome and convenient new portable range, Esther?

I am sorry to see in you, Enoch, an over-wrought frame of mind.

I saw last evening on Rib Ridge portly Mr. Sutherland. I was afraid he might receive a bang, or some other jar.

That was procured as a specimen of high art for Daniel Webster.

On the table are grapes, figs, and apples in abundance, while here is a lemon for Jenny. CHOP-CHOP.

A DIAMOND PUZZLE.

A consonant. A grain. A passion.

That branch of medicine of which the object is the preservation of health.

A cereal.

A numeral.

A vowel.

KEY.—This puzzle when solved will be in the form of a diamond, the middle perpendicular and middle horizontal being the same word. This principal word is composed of seven letters; the two each side of it, five. The next two, of three; and the first and last, of one only.

MAC.

ANSWERS TO THE PUZZLES IN MARCH NO.

ENIGMA.—*Poets and their Sentiments*.—"Patience, accomplish this mission, accomplish thy work of affection."—JOHN W. WELLS, MARISSA, RUGBY, ZIG-ZAG.

ACROSTIC.—*Health*.—Habits, even, air, lotion, tonic, heat.—LOTTIE BEVINGTON, JNO. W. WELLS, MARY F. STEWART, J. COLBURN, RUGBY.

VEGETABLE ENIGMA.—Potato, Beet, Celery.—LOTTIE BEVINGTON, JOHN W. WELLS, TILLIE S. ROWE, J. COLBURN, MARISSA, RUGBY, ZIG-ZAG.

CONCEALED INSECTS.—Wasp, Worm, Fly, Miller, Gnat, Mosquito.—ISABEL, LOTTIE BEVINGTON, JOHN W. WELLS, MARY E. STEWART, TILLIE S. ROWE, J. COLBURN, MARISSA, ZIG-ZAG.

Communications for this Department may be addressed to L. K. GRAY, Ipswich, Mass.

Hygienic Seasoning.

"How many deaths last night?" inquired an hospital physician of a nurse. "Nine," was the answer. "Why, I ordered medicine for ten." "Yes, but one would n't take it."—*Ex.*

THE sands of a woman's life run out all the quicker when her waist is shaped like an hour-glass.

AMONG the gifts to a Pennsylvania bride, a few days since, was a broom, to which was attached the following sweet, sentimental lines:

"This trifling gift accept of me,
Its use I would commend;
In sunshine use the brushy part,
In storms—the other end."

A PREACHER in an Illinois town, while laying the corner-stone of his new church not long since, said: "If boys and girls do their sparking at church, I say amen to it. I have a daughter whom I cherish as the apple of my eye. When she is of suitable age, I had rather she should be courted in the house of God than in a theatre."

SOMEbody once sent to the farmer's column of a rural newspaper, a statement that brandy mixed with the food of hens would make them lay. To which the editor appended, as comment, that he had no doubt of the truth, since he had often seen it make old cocks "lay" in the gutter.

THERE is a Justice of the Peace in Iowa, before whom a citizen had prosecuted his daughter's lover for ejecting him from his own parlor the Sunday evening previous, who solemnly decided as follows: "It appears that this young feller was courtin' the plaintiff's gal in plaintiff's parlor, and that plaintiff intruded, and was put out by defendant. Courtin' is a necessity, and must not be interrupted. Therefore, the laws of Iowa will hold that a parent has no legal right in a room where courtin' is afoot, and so the defendant is discharged, and the plaintiff must pay costs." [Rather hard for the head of the house.]

A WABASH editor returns thanks for a centipede received by mail from Texas, and says it is the first cent of any kind he had seen in a month.

A GENTLEMAN, at a musical party, asked a friend, in a whisper, "How shall I stir the fire without interrupting the music?" "Between the bars," replied the friend.

A LITTLE fellow not very far from here was recently heard to ask: "What do Charlie bite Emma for and her don't holler?" Take care, girls, when little brothers are about.

A SHORT-SIGHTED gentleman in Celina saw a neighbor's black cat sleeping on his wood-shed roof. He seized a shot-gun, took aim—and blew the North American stuffing out of his wife's best back-hair, placed there to dry in the sun. He listened to some funny conversation for a while!

"HAVE you seen my black-faced antelope?" inquired Mr. Leoscope, who had a collection of animals, of his friend, Bottlejack. "No, I have n't. Whom did your black-faced aunt elope with?"

A COLORED physician in Macon, Ga., who had but one remedy for all ailments—kerosene oil—has been imprisoned for practicing without a license.

To make money—Get an appointment in the mint.



NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

PURE WATER—ITS IMPORTANCE.

BY E. B. RINGLAND.

THE subject of "Pure Water, in its relations to Health and general Dietetic Use, compared with Well and Spring or River Water,"* is one of serious import, and affecting the health and happiness of us all. Man may be said to be a walking pouch of water; that element being universally present in all the tissues of the human structure, whether of flesh, muscle or bone. Without fluidity, the bodily functions cannot be performed; for, through the agency of the fluids, new substances are introduced and floated into various parts of the vital domain, to build up and replenish it; while the old, worn-out, dead, effete, or refuse particles are, by the same agency, removed to the various places of external deposit. At least three-fourths of the human system is water when in a normal condition.

Of the various organs of the body, the brain, the citadel of life, is four-fifths water. Muscles—the power that moves the nations—are three-fourths water. The gastric juice—which is essential to the digestion of food—is ninety-seven one-hundredths water. The saliva with which we masticate our food is ninety-nine parts in one hundred water. The blood thereof, etc., is four-fifths water. This element being so intimately related to our existence, makes it an important

question for investigation, for this reason: If the fluids are impure—contain foreign substances—they will, when brought in contact with the delicate tissues of the human system, irritate, excite or inflame them; for the whole power of the vital forces is engaged in expelling impurities when they exist. Every substance that cannot be digested and assimilated—converted into blood—is an enemy to our bodies, and causes an effort of the same to remove it. Pure drink, then, is essential, and nature [or art] must provide it. This is done by the descending showers, the up-heaving springs, the flowing rivers, etc. But are these pure? and if not, why not?

The air during the summer months is filled with gases and vapors, poisonous from decaying vegetable and animal life, which is absorbed by the falling pearl drops of rain, making it objectionable in proportion to the amount of atmospheric impurities. This is a very serious consideration, when we remember that it is a property of water to consume impure grasses. Not only does the water meet it in the air, and, as a consequence, wash it down, but there exists an affinity for the impurity, in the same manner that is found in copperas, lime, and carbolic acid for odorous substances.

A glass, or pitcher, or bucket of water should not be used after it has stood in

* An Essay read before the Warsaw Horticultural Society, Hamilton, Ill.

a room over night, or even a few hours (if persons have been present breathing out carbonic acid gas), for this same reason.

In regard to wells and springs, we unhesitatingly assert them to be one of the greatest enemies to mankind that is tolerated, when they produce hard water, or that which contains earthy and saline matter, the most common of which are sulphate and carbonate of lime. The rain water, in having percolated through the earth, not only takes up soluble matters from the soil, but during its passage it imparts some of its beneficent qualities to the same. The nature of the impurities being that of excitants, indigestible substances, they are taken into the circulation unchanged, thereby placing upon the purifying organs a special tax of riding the system of them. This water being habitually used, the integrity of the purifying organs become impaired, and gradually they perform less ably their duties. The foreign substances are thus permitted to more freely pass into the various avenues of the system, until the whole is pervaded.

Can we suppose these particles of lime can thus harmlessly pass through the exceedingly minute vessels of the glands, even the brain itself, without decidedly injuring the delicate tissues on which they act? It is an observable fact, that the brawny hands of the day laborer, when habitually washed in hard water for a short time, lose their softness and become dry and rough, often cracking and breaking out with sores. What the effect upon the delicate mucous coats, the nervous and other tissues of the human frame is, we may judge from this illustration. It is strange this plain observable truth should be considered so questionable, and that drink should be continued from generation to generation, and from year to year, that harasses and irritates our bodies with mineral impurities. There is no uncertainty in this matter. The stomach, liver, heart, lungs, and every vessel of the system, in fact every organ and tissue, suffers from using hard or impure water. Although no or-

gan may become the seat of active disease during a life-time from its use, such drink will decrease the functional power, rendering it less forcible and more liable to disease. Pulmonary consumption, scrofulous affections, indurations, cancers, and other glandular diseases, affections of the skin and mucous membrane, are often caused by this continual use of hard water. In fact, it is the case that a large part of our functional disturbances are either advanced or aggravated by impure drink, and in every kind of chronic ailment, it retards greatly or hopelessly prevents the return to health.

These assertions may be objected to, upon the ground that a great many persons flock to mineral springs for the especial reason of procuring health, and that they are benefited. We will admit that they are benefited. Rest, recreation, and change of avocation gives a new tone to them, replenishes their vitality, and the mineral waters, because of the very reason we have given, may stir up the latent system, set it whirling in intense action, and, the stay being short, the evils are counterbalanced by the benefits. But to continue the use of this impure drink is certain to injure. No man who habitually drinks mineral water can retain health, and the cause is the same we have given for the injury sustained in drinking hard water. We repeat, the particles found in this water cannot be used by the system, and in passing through the exceedingly delicate vessels and tissues, impair their integrity and cause their power of action to become less effectual than they should be to insure perfect health. If we consider them even beneficial as a medicine, we must explain how the system differs in its organization when diseased from that when sound, and how it can be possible for water, impregnated with various mineral substances, to be good in one condition of the system and not in another; and further, if to continue its use a longer period produces a diseased condition, how will we explain that, by drinking it a shorter period, the injury will

not be proportionately great. We then would utterly discard all water for dietetic purposes that contains in solution any mineral substances.

RIVER WATER

is composed of the contents of springs, rains that fail to be absorbed by the earth, and the melted snow waters. We do not consider them so directly injurious, because of the admixture of soft water so largely in their composition; and because of the constant activity of the river stream, which tends toward purification; but when we consider the amount of filth in street cleanings, out-house washings, dead and decaying animal and vegetable matter, washed in from the smaller feeders, the hard water from springs, the green-scummed offerings from marshes, sloughs, bayous, and other places, we find that in it we have not the purity we need for dietetic uses. It might appear almost impossible for us to find that desideratum, but the all-wise Creator, in whose image we are formed, did not create a pure and perfect being without placing before him all that, if properly used, would prevent his ever degenerating, if he did permit him to be surrounded with temptations that will produce pain and disease.

LIQUIDS IN FRUITS AND ROOTS.

Water is supplied in the purest form in the juices of our fruits and vegetables, and from the clouds. A large portion of our drink should be derived from such fruits and vegetables as compose the natural food of man; and they pursue the wisest course who use abundantly, as regular food, these aqueous substances. There are many examples of human beings living as witnesses of the truth, that these will entirely supply the fluids which the vital economy of the system requires. It is an undisputed fact that the use of spices, stimulants, salt and flesh meats, make the necessity for far more copious water-drinking than a perfectly normal condition of the system would demand.

CISTERN.

In view of this fact, we must provide a drink, and the purest and only perfectly

pure method of obtaining it is to provide a cistern, well cemented and hardened before using, running through a filter the rain-water that falls when the ground is frozen over in the late fall, winter, and early spring. This insures that no poisonous gases will come in contact with the rain as it falls, and being pure when it descends, it will so remain if cautiously watched. In this cistern should be placed a simple chain pump, to stir the water and keep it alive and pure, while at the top sufficient opening should be left to insure thorough ventilation. To provide a filter is a very inexpensive task; a box filled with sand, gravel, and charcoal, answering every purpose. When the spring comes, simply turn aside the spout and you have the most healthful, delicious, cool and refreshing beverage that human beings need, or can truly enjoy. All those who can provide such drink, are bound by every consideration of health and morality to do so.

We venture the assertion, founded upon the history of those persons who have had the bravery to defy opposition, that if every family in the land should adopt these recommendations, keep the fluids in perfect harmony with the demands of nature, and the external man correspondingly pure by well-timed ablutions in this same pure soft water, the decrease in the present aggregate of physicians' bills would be, at the smallest estimate, over fifty per cent. Remember that the price of health is obedience to physical law.

DON'T BE TOO CRITICAL.—Whatever you do, never set up for a critic. We don't mean a newspaper one, but in private life, in the domestic circle, in society. It will not do any one any good, and it will do you harm—if you mind being called disagreeable. If you don't like any one's nose, or object to any one's chin, don't put your feelings into words. If any one's manners don't please you, remember your own. People are not all made to suit one taste, recollect that. Take things as you find them, unless you can alter them. Even a dinner after it is swallowed cannot be made any better. Continual fault-finding, continual criticism of the conduct of this one and the speech of that one, the dress of the other and the opinions of t'other, will make home the unhappiest place under the sun.

CHARLES SUMNER AND ANGINA PECTORIS.

BY R. T. TRALL, M.D.

THE HON. CHARLES SUMNER is said to have died of angina pectoris. The autopsy is said to have confirmed the diagnosis. The celebrated Dr. Brown-Séquard diagnosticated ossification of the coronary arteries of the heart, and these arteries were found to be in a condition of ossification after death. The newspapers have reported, on medical authority, that angina pectoris depends on ossification of the coronary vessels of the heart as its essential cause. So far, everything seems plain and palpable. Nevertheless, I think Mr. Sumner's case was entirely misunderstood.

Angina pectoris is one of the obscure and mysterious maladies that physicians are often called upon to medicate. No author pretends to understand its nature, although ossification, aforesaid, is sometimes assumed to be its cause. But this assumption has no other basis than the fact that the coronary arteries of the heart are *sometimes* found in a greater or lesser degree of ossification in the bodies of persons who have died of the disease termed angina pectoris, or of the medicine, or of something else.

But it so happens that ossification of these arteries has been frequently found after death, where no symptoms of angina pectoris existed during life. It has been found after death of violence, and of various diseases. And what is still more conclusive, patients who have had all the symptoms of angina pectoris in their most aggravated form, have been found, on post-mortem examinations, entirely free of any traces of ossification or other morbid condition of the heart, or of any of its vessels or structures.

If ossification of the blood-vessels were the cause of angina pectoris, this condition would be found to exist in every case. Its absence in a single case is conclusive against the theory. Says Professor George B. Wood, M.D., of the Jefferson Medical College, Philadelphia, in his "Practice of Medicine" (Vol. II., p. 216), "Dissection often reveals nothing to

which the disease can be ascribed." The usual symptoms are, severe pain in the region of the heart, occurring in paroxysms, with more or less difficulty of breathing; the pain extends through the chest to the back, and often the limbs, and these may be affected with numbness. Palpitation of the heart is frequently a coincident symptom when the distress and anxiety are extreme, and the patient feels as if dying.

Mr. Sumner died suddenly. The day before his death he was attending to his duties in the Senate chamber. The treatment consisted principally in stupefying the patient by means of morphine injected under the skin, and arousing the narcotized patient to sensibility afterwards by corresponding doses of brandy. Such medication must necessarily be powerfully death-tending, and in a double sense, and, in my judgment, is sufficient to account for the unexpected and remarkably rapid termination of the case. It reminds me of the late Hon. Horace Greeley, whose case (equally mysterious) is fully explained in the little work on "Digestion and Dyspepsia."

Those who can understand the effects of Mr. Sumner's unhygienic manner of life, especially his dietetic habits, need have no difficulty in explaining his case, without resorting to ossification or any other affection of the heart, or its vessels or appendages. I have had many similar cases to treat, some of whom were members of Congress. Among these I may name the late General Walbridge, of New York, and Senator Foster, of Maine. But, as a more recent case illustrates the points I wish to make exactly, I will relate it.

In November last Mr. Nicholas Reed, of Newburg, N. Y., consulted me by letter, desiring a prescription for self-treatment. He had the ordinary symptoms of angina pectoris, for which many physicians had prescribed the usual medicines. I pronounced his disease enlargement of the liver. With this diagnosis

he expressed his decided dissatisfaction, as four eminent physicians assured him that he had nothing of the kind. I invited him to come to Florence Hights, and as my medical class was then in session, I proposed that if he would consent to an examination in presence of the class, I would either justify my diagnosis or pay all of his expenses. He accepted the proposition, appeared before the class on the next clinical day, and was readily convinced that I was right, and all the drug doctors wrong.

The patient remained with us under treatment several weeks, and left greatly improved in health. He has had no paroxysm of angina pectoris since. But during the first three weeks he had several severe paroxysms, attended with extreme palpitation, great difficulty of respiration, and the usual dying sensation, so much so that we were obliged to keep two attendants constantly at his bedside. But he had no morphine, nor brandy, nor drug stuff of any kind, or he might have died as unexpectedly as did the Hon. Charles Sumner.

It is simply absurd to attribute the symptoms of angina pectoris to ossification of the coronary arteries. The symptoms occur in paroxysms. Ossification is a fixed, permanent, and unchangeable condition. If severe pain, palpitation, difficult breathing, etc., depended on this constant condition, they would be constant also. But an enlarged liver, as does also a very torpid liver, occasionally becomes more than usually congested, because of constipation, stomachic abuses, mental anxiety, fatigue, and numerous other incidental causes, and then pressing mechanically on the heart, stomach, and diaphragm, occasions the symptoms which characterize the paroxysm of angina pectoris. If the patient remains quiet for a few hours, and fasts for a day, or diets very abstemiously for two or three days, the swelling of the liver subsides, the pressure on the adjacent organs is removed, and the patient is relieved for the time. A warm bath, as an auxiliary, is better than all the morphine of the drug shop, and all the brandy of the grog shop.

IS IGNORANCE BLISS?

BY ELEANOR KIRK.

MR. BENNETT came down to breakfast with a scowl on his handsome face, his left hand passed to his left temple, and a look of woe pervading the entire six feet of a very striking and refined personality.

"Are you sick?" inquired Mrs. Bennett, in rather a subdued tone from behind the coffee urn.

"No, not exactly sick," was the dismal answer, "but my head aches as if it would split. I wish you would ask cook to make me some black coffee. I am afraid that"—pointing to the urn—"isn't strong enough."

The inky decoction came on in a small after-dinner cup, which Lilliputian article Mr. Bennett filled and emptied at least half a dozen times. Mrs. Bennett thought she would have a little; her head didn't feel "any too good." Breakfast over, Mr. Bennett confessed to feeling "quite

like another man;" and, to quote the gentleman's own words, Mrs. B. was "as chipper as a bird."

"Astonishing," said he, "what a cup of coffee will do for a fellow when he is a little under the weather!"

"Isn't it, though!" replied the other half. "I thought, to be sure, before breakfast, I should be obliged to give up my shopping excursion for the day, but I am all right now."

So they were both "all right."

Mr. Bennett hurried down to Wall street. Stocks were jumping the wrong way; and the consequence was that he jumped all ways to cover. If any one had asked him during the busy shrieking morning how his head was, it would have been doubtful if he had been conscious that he ever had a head. A lull at one o'clock gave him an opportunity for the

cramming process, which he performed with his usual dexterity. This was his bill of fare :

An English mutton chop; a glass of ale; an oyster-ple, with rich flaky crust; a plate of plum-pudding, hard and soft sauce; half a lemon-ple, to "top off with;" and a cup of "black coffee."

Mr. Bennett did not remove his hat or overcoat, and the bolting period occupied exactly ten minutes.

Let us look in at Mrs. Bennett. Wound up with black coffee, she does not run down until the shopping is half over. Then she begins to feel nervous, and quite disinclined to pursue her search after the best and the cheapest. An idea suddenly strikes her. The watch says one o'clock. She remembers that her breakfast was very light. Why, of course, she will go and get some lunch.

BILL OF FARE.—Fried oysters, pickles, hot muffins, green and black tea (strong), maccaroon meringue.

A friend enters, and they have some ice cream together, and then "top off" with a glass of wine.

True, Mrs. Bennett feels generally uncomfortable, and remarks to her friend, that she was miserable enough before lunch, but ten times more so since. It is "such hard work to get a long breath."

"If I laced now," she went on, with a little groan, "I should certainly think it was that; but I never do compress myself."

Certainly not. How ridiculous to mention such a thing. "Compress yourself," no, indeed! Of course, you are a trifle particular about the set of your dress. What fashionable woman is not? Let's see, you weigh 140 lbs.; corsets, twenty inches! There may and there may not be a trifling physiological inconsistency about these figures. However, there they stand, and the world is welcome to them. You have been heard to say, I believe, that your corsets "always meet." Always meet! twenty inches! and the mother of two children!

Mrs. Bennett actually gasped for breath as she mounted into a Broadway stage on her way home. She thinks she may have been a little foolish to have eaten

fried oysters. Fried oysters never did agree with her! Once at home, she removes the girding bands; wonders why the red streak round her waist is so much wider and redder than usual; snaps the babies who toddle in to see mamma. She is "all tired out, and so dreadfully nervous." She explains to nurse, and then follows an hour of heavy sleep, from which she arouses feeling worse than ever. Then comes the "twenty-inch" corset; the heavy skirts, *suspended from the hips*; the "elegantly fitted" dinner dress; and a dull, heavy pain in the abdominal regions, which she decides she will consult a physician about the very next day. That pain is a great mystery to Mrs. Bennett. A singular "straining, bearing-down" pain, which she assures herself is quite at variance with her general health. Indeed, as she expresses it to an intimate friend, "it does seem a shame that women have to put up with so much."

Don't tell me that woman is an exception. I am acquainted with scores of them.

Mr. and Mrs. Bennett are your neighbors, and my neighbors, and they don't know any better, because they have never been taught. Physiology is an unnecessary and probably disgusting study to both of them. Their stomachs are made to be kept filled, and with whatever is most agreeable to the palate. Mr. Bennett must make money fast; and, to do this, must sacrifice the enjoyment of it; for money without health is quite as much of an aggravation as a blessing.

Mrs. Bennett will look genteel, and thus children are ruined before birth, and neglected after, to say nothing of her own spiritual and physical destruction.

What shall you do? Find out how you are put together, and what kind of treatment your machinery demands. Read—study—and if your progenitors had any common sense to spare, use that. But remember this, twenty-inch corsets are not large enough for you or any other mother of two children.

It will probably not surprise my readers to hear, and especially not the Mr.

and Mrs. Bennetts, that this husband came home to his other half—Lord, save the mark—as cross as a bear, bolted his dinner, and went off to his club; or that Mrs. B. cried all the evening, and vowed,

at the end of it, as she slammed into bed, that “if she were single, she wouldn’t marry the best man that ever lived!”

Whether you believe it or not, it is the truth.

PREDISPOSING CAUSES OF DISEASE—CONDIMENTS.

BY ERNEST WELLMAN, M. D.

How to Get Well and Keep Well.—No. 6.

TEA AND COFFEE.—Yes, tea and coffee must be classed among disease-producing agents. It is impossible to include them in any opposing category. They are neither food nor drink. They serve no purpose in the living organism, except to excite the nerves to abnormal action, exhaust the vital resources, and interfere with the nutritive processes.

How do we know that tea and coffee are unhealthful substances? Can we prove these statements? The great mass of civilized mankind use them as healthful indulgences (just as though there could be such things), and believe, no doubt, that in their use they are acting in obedience to the laws of nature; what right have we to dispute their wisdom?

Let us go to the bottom and examine this question carefully. Superficial guesses and dogmatic assertions ought not to be trusted on a subject so important and yet so little understood.

Contraria contrariis curanter is the allopath’s; and *similia similibus curanter*, the homœopath’s law of cure; while the eclectic accepts both. The first phrase expresses the cure of one disease by the production of another exactly contrary; while the second means the cure of one disease by the production of another precisely similar; but whether the one or the other, it is always the cure of one disease by the production of another.

Martyn Payne, M.D., LL.D., in his great work, entitled “Medical Institutes,” says, “We do but cure one disease by producing another;” a statement which is not only true, but, I believe not, disputed by any respectable author. Such being the case, it follows as a necessary consequence that any substance having med-

icinal properties, so called, must be a disease-producing agent. No medicinal effects can be produced except by unhealthful agencies; no cure ever was performed on the drug-medical plan, except by the employment of means that would make a well man sick. “All our medicines are essentially morbid,” and “our strongest poisons are our best remedies,” says Dr. Payne, before quoted.

To determine, then, whether any substance is healthful or unhealthful—whether it may be used in the organism, or whether it is a poison to be cast out—we simply need to inquire whether or not its employment induces medicinal effects. All stimulants, tonics, sedatives, narcotics, alteratives, emetics, cathartics, diaphoretics, diuretics, chologogues, etc., anything that will produce a medicinal or specific effect on the human system, is, on principles everywhere admitted by medical men, an unhealthful substance, and hence should be discarded by all persons who would maintain health. Tea and coffee are such substances. No one disputes their stimulating effects. Dunglison, in his dictionary (a standard work), declares that coffee “is, to a certain extent, a tonic, and is employed as such in convalescence, especially in fevers, etc.” Thus we see that coffee is medicinal; and hence, by every principle of medical wisdom, as this is expounded or held by all medical authors, it is unhealthful. Dunglison further confirms this truth when he says that a highly nitrogenized alkaloid, called caffeine in coffee, and theine in tea, “in doses of from two to ten grains, induces violent nervous and vascular excitement.”

But medical men often contradict the logic of their own theories, and on this

subject of coffee the contradiction is complete. "The infusion of coffee," says Dunglison, "is an agreeable and wholesome article of diet." How it is that a substance can be both food and medicine, while medicines are always poisons, he does not condescend to tell us. Coffee is diet just as truly as alcohol is, and no more so; and both are classed as food by the same superlative wisdom that undertakes to cure diseases by adding to their causes.

Who tells us that alcohol supports vitality; that strychnine, nitric and prussic acids are powerful strengtheners; that arsenic possesses great curative properties; that mercury is the great panacea, the last resource of medical art—tells us also that tea and coffee are wholesome articles of diet; and the wisdom of one statement equals the wisdom of any of the rest. They are all rank absurdities, and totally indefensible. But men believe them, nevertheless; for it is usual to believe what is not known, and confide in what is not understood.

Caffeine is also set down as an anti-periodic, being thus classed in the same category with arsenic and quinine.

SPICES.—Thus it is seen that the same principles that condemn tea and coffee, tobacco and alcohol, as disease-producing agents, condemn also spices of every sort and kind. These all possess medicinal properties, so called, and are frequently employed as medicinal agents. They are stimulants, irritants, and poisons, and are to be classed together with tobacco, alcohol, tea, coffee, and all other drug poisons.

MUSTARD.—Who does not know of its poisonous qualities? It is a prompt emetic when mixed with water and swallowed in doses of half a teaspoonful. When applied to the external skin, it is a powerful irritant, inducing burning pain, redness, and blister. Is it wonderful, then, that it should cause extreme irritation of the internal skin when taken internally? And if a man would hesitate to suffer the injury of a mustard plaster outside, is it not remarkable that he does not dread its effects on the inside? The

effects are the same, saving only the immediate pain. The external skin is supplied with millions of little sentinels, in the shape of, nerve-fibrils, which telegraph instantaneously to the centres of action the presence of a foe, and pain is the recognition of the dispatch; but the internal skin has no immediate connection with the centres of sensation, and hence, though great injury may be done to it, no immediate pain will follow; so that the unintelligent transgressor may suffer agonies untold as the result of poisons, and scarcely dream of the cause. There is a cause nevertheless, and it were well that he should learn it. The injury is none the less severe that he does not feel it, and the practice none the less to be deprecated because its results are not immediately obvious.

Pepper, cloves, cinnamon, nutmeg, ginger, allspice, etc., are all medicinal substances, and what has been said of mustard may be said of these. They are to be avoided by all persons who would regain or maintain health.

PICKLES.—These are unwholesome because of the method of preparing them. The fruit or vegetable pickled is usually good enough in its natural state, but the pickle and the mode of preparing are anything but hygienic. The writer, taking his morning walk in New Jersey one day, stopped to speak with a plowboy who was turning the furrows in a field by the roadside.

"What are you going to put into that ground?" I inquired.

"Pickles," he replied.

"What do you do with them?"

"Sell them in B—," was the answer.

"Are they bottled there?" I asked.

"Yes. We take them to B—to the warehouse, where they green 'em, and then bottle them for the New-York and Philadelphia markets."

"Green them! what does that mean?" I inquired.

"Oh!" he said, "they put them into large copper kettles filled with vinegar; then they mix in with them old pieces of copper, such as they can find—old kettles, boiler bottoms, and the like. The

vinegar acting chemically on the copper makes verdigris, and this verdigris greens the pickles."

Just so. I turned away a wiser if not a sadder man. The plowboy taught me a lesson that I shall not forget. I learned how these beautiful, bright green pickles are made that are so temptingly displayed in grocery windows; and I don't want any of them. The people of New York may eat verdigris to their satisfaction, but I beg to be excused. It is altogether too violent a poison to set well on my stomach.

Vinegar itself, without verdigris, is sufficiently unwholesome, as many have proved to their satisfaction. By its use, too many fat, hearty country girls have made themselves thin, pale, and, as they imagine, delicately beautiful. The time

is coming, if not already here, when all men who are worth having as husbands, will readily distinguish between features delicately chiseled by noble aspirations, pure thoughts, and virtuous actions, and those that have been reduced to the delicate standard by unhygienic influences. When the people wake from their long slumber; when the stupor of ignorance on health subjects is passed; when the callousness of heart necessarily engendered by the oft-repeated searings of sickness, suffering, and death, shall give way to the sensitiveness of enlightened conscience, and the strength, will, and self-possession necessarily connected with definite knowledge—then men will esteem health above beauty, and women will have learned that it is the necessary prerequisite to all desirable attractiveness.

HURRY AND WORRY.

BY HOWARD GLYNDON.

AN agent was explaining to a lady the best way of managing a sewing machine. Said he, "With proper care this sewing machine will last a lifetime. But you must not run it at lightning speed at one time, and leave it unused for months at another, till it gets rusty. Above all, you must be sure to prevent friction, by keeping the machinery well oiled. Running a sewing machine with unnecessary friction of the parts wears it out in a short time."

To me it seemed that he spoke in parables, and that every word he said about sewing machines would have applied with equal propriety to the human organization.

He wanted to have his machines run regularly, evenly, smoothly, and moderately; and these conditions make up the very *summum bonum* of hygienic prosperity—the "*mens sana in corpore sana*" of the ancients.

That "the race is not always to the swift," we see amply exemplified every year, when one, or more, of those who are becoming shining lights among men,

go down suddenly, pass out from among us, leaving places which no other may fill, at the very time when they should be in their prime, with twenty, thirty, or forty years of usefulness yet before them. It is because they have lived too fast—have worked in season and out of season—have driven the machine at lightning speed, regardless of friction, until suddenly, some day, the whole machinery stops and will never run again, because it is prematurely worn out.

The inseparable attendant of hurry is worry. People are mistaken when they think they are going very fast because they hurry. The shoes of swiftness are not the ones that are tripped up by the wayside stones; and oftenest he who starts out in the greatest hurry is the last in at the goal. There never was a truer proverb than that haste makes waste. There is such a possibility as training one's self to do a thing quickly, but without the least hurry. Hurry comes of helplessness and inefficiency. It is a confusion of the brain, a tumult of the blood, a warfare of the nerves and

muscles, and leaves the body and mind in a state of disastrous reaction. It is eminently expensive. False steps are taken, things are dropped or forgotten, and mistakes are made when one is in a hurry; and after it is over the reaction makes a person so perfectly miserable! People who live in a state of chronic hurry are short-lived; and because of the worry that comes with hurry, they are prematurely old. You can't hurry without worry, because hurry leads you to do things that you can't help worrying over.

There was living in New York a year or so ago a very old woman—but a woman so well preserved that she did not look anything like her real age, which was nearly a hundred. She was a very cheery and independent old body, too; enjoying life more than many people younger than herself by forty and fifty years. She thought she owed her prolonged life to the fact that she had made it a rule never to be in a hurry, no matter how fast she might go. Through this precaution she avoided that bane of hu-

man life—worry, which kills ninety-nine people where hard, but regular, work kills only one.

We need not wonder that Americans of this generation are killed off so early, when we remember how they hurry and worry. They jump out of bed as if propelled thence by a boot-toe; jump into their clothes and then gobble their breakfasts between two breaths; then they "streak it" for the train—if they live out of town—or rush madly for a street car, always preferring to run themselves out of breath for the one that is a little ahead of them, rather than wait ten seconds for the one that is coming along behind. This way of commencing the day is a fair sample of the way it goes on. Your American of this class is always just getting off, or getting on, by the skin of his teeth; and his life is made up of close dodges, hair-breadth escapes, and superhuman efforts, which would not have been necessary at all, were it not for the causeless state of chronic hurry in which he exists. And yet these people expect to survive, and to enjoy life! When?

"SALUTE NO MAN BY THE WAY."

BY ALEXANDER WILDER.

MANY of the sayings, proverbs, and admonitions which have come down to us from former periods, are characterized by an apparent triviality, or even caprice, like old nursery tales, tempting us in the excitement of impatience to disregard them altogether. Those of "Holy Writ" constitute no exception. We are conscious of being no longer children, and that this is not a childhood period for our branch of the human race. Not even our early taught veneration for the Man of Nazareth is sufficient to overcome this feeling, unless a manifest reason is afforded for accepting his utterances on their intrinsic merit.

Nevertheless, a hasty or superficial judgment will not be a justification for overlooking or rejecting them. In the fairy tales which have amused us in early

life, and which retain their popularity in spite of endeavors to drive them out of our literature, studious and inseeing men, like the late General E. A. Hitchcock, have shown their excellences and evolved from them a profundity of meaning. Emanuel Swedenborg extricated an internal and celestial sense from Hebrew Scriptures, where others could hardly find an authentic narrative. Whether we are prepared or not to accept all his assertions and deductions, enough is comprehended to make us sure that it would be mistaken judgment to cast aside these old-time utterances. They were inspired, we may feel certain, by deeper wisdom than we may have at first sight imagined. We can afford to wait, and hold fast to them, till we have grasped their real meaning. Our labor will

be amply repaid when we read them aright.

In "the Gospel according to St. Luke," it is recorded that while Jesus was traversing the circle or province of Galilee,* he appointed seventy disciples to go before him as heralds to preach in the cities and places which he had proposed to himself to visit. Instructing them what to do, he added: "*Salute no man by the way.*"

What this admonition means, and why it was given, we propose to illustrate. We regard it as dictated by the ripest prudence, and amply justified by the deepest experience. It means far more, we premise, than appears at first sight. The mere formal or courteous salutation which is prohibited, is apparently a small matter, not worth taking umbrage about. But to a sensitive person, or a person of feeble will, it is something more. Jesus manifestly so regarded it. "I send you forth as lambs among wolves," said he; "*Salute no man by the way.*" When before that he commissioned the Twelve, he charged them also: "I send you forth as sheep in the midst of wolves; be ye therefore wise as serpents and pure as doves." These two admonitions, we think, are very like in their meaning. The disciples were but neophytes in the faith. The mission on which they were sent was largely for their discipline, to test their powers, their earnestness, and their courage. The greatest prudence and discretion was essential. The direction to "*salute no man by the way,*" meant as much. If lambs salute and hold discourse with wolves, they place themselves in the wolves' power, and are liable to be devoured. So, likewise, a man having any specified work to perform, if he delays or neglects it for other or extraneous matter, however innocent apparently, is likely to fritter away the powers and qualities required for what he was set to do, such as clearness of perception, buoyancy of temper, and energy of purpose. This prescribed work is thus left undone

* Galilee is a name of Hebrew or Phœnician origin signifying a *circle*, and was employed in that sense to designate the district lying between Phœnicia and the river Jordan, in the same sense that the Romans called Southern Gaul by the term *Provincia*.

entirely, or he brings to its accomplishment only a fatigued body and a vacillating will.

This is plain enough from the commonest considerations of worldly prudence. A person with a definite object to pursue, who willingly wastes time and energy in conversation or any form of idle dissipation, is prone to leave undone, or half done, what he had undertaken. Despite theology, we regard shiftlessness as the unpardonable sin, preparing the way for other misdeeds; and yet we fear that it is one of those worst and wickedest of demons that "go not out, save by prayer and fasting."

But considered from another altitude, a person having understanding will apprehend the deeper meaning in the admonition to the Seventy. *They were to conserve their powers.* In many ways does heedless talking and other idling weaken the faculties. It is the using of strength which, when thus wasted, cannot be in reserve, to be employed for other purposes. The money spent for needless luxuries is not at hand to buy a house or homestead. The man of business carefully concentrates his attention on his pursuits; the wise student never lets the reading of a novel or frivolous diversion precede his lessons; the public speaker diligently refrains from much conversation, that the best treasures of his mind may be at command for the effort which he is to make.

We read of Jesus, that on one occasion, when some one had purposely touched him, he perceived the fact because "virtue had gone out" from him. This is what every one is likely to suffer from contact with others, especially when there is not reciprocal benefit afforded at the same time. Many persons are addicted to a vampire-like practice of fastening upon others, drawing them into conversation or other communion, and absorbing thus their vivacity and best energies. Some seem to subsist more or less in this way. This is no chimera of the fancy, but actual fact. Few comparatively have the stamina to undergo repeated drains of this kind. Sensitive persons are usu-

ally the greatest sufferers, and should especially be upon their guard. They are liable from such inflections to a prolonged weakening of their powers, a lowering of the vital forces, a befogging of the mind, which unfits them for work till sleep and other recuperating agencies have restored them. Even if the more serious results do not occur, the "letting down" which these exhausting exercises occasion is an evil to be avoided.

What we have acquired with care, painful seeking, and discipline, is not to be given to others who have not undergone such experience and development. It occurs in the world that the wealth which a man accumulates is generally squandered by those who have not been schooled in similar diligence. More true is this of treasures of the heart and intellect. When these are conferred lightly upon those who know and care not for their cost or their worth, they are received as of little account. The giver is despised and often reproached. Instruction which is not prized is wasted. Hence, the instinct of self-preservation should be allowed full scope; else, beside the vital loss, there may be likewise a return made of the most obnoxious character, exasperating to the sensibilities, and pernicious to the soul. The caution was wise beyond compare:

"Give not that which is holy to the dogs;
Nor cast your pearls before the swine:
Lest then the swine should trample with their feet,
And lest the dogs turn on and rend you."—*MATT. vii. 6.*

The charge to the Seventy may from this be perceived to be fraught with deeper meaning. As "worldly wisdom" it is invaluable. In that capacity it points out the open way to fortune, honor, and self-respect. Shiftlessness is the unpardonable sin, preparing for all other misdeeds; yet we fear that it is one of those demons that "go not out, save by prayer and fasting." By diligence in business, careful attention to what we do, and zeal in its performance, resisting everything and every person that would divert, success is achieved, subjectively and objectively, in our own minds and in what we are endeavoring to perform.

But when we come to the interior life, that which is above worldly prudence or even intellectual attainment, the command which was given to the Seventy becomes yet more significant and imperative. We do not mean that it is arbitrary, or originating from a capricious Power above us, for in its entire scope we know it to be wise and benevolent. Its absoluteness is inherent. The words to the Seventy implied more than mere formal or courteous salutation. Their meaning extended to the diffusing upon others, uselessly and illegitimately, a portion of the divine afflatus which each disciple needed for himself. This would happen, more or less, where the persons were of like mind and purpose; how much more, then, by careless or exhaustive colloquies with others. Where benefit is conferred, and kindness rendered, we have no occasion to object; for of such acts consists the best effusions of the higher life. When, indeed, "it is more blessed to give than to receive." We only regard the wasting without benefit or return. It being a subtraction, an exhausting of the volume of the life itself, the loss cannot well be afforded without ample equivalent. In such case the caution of Jesus to the Twelve is of greatest moment, to "be wise as serpents and harmless as doves."

In this department of our being, thoughts, words, and acts are living substance. They make up our spiritual structure; we are fed by them and by spiritual emanations, and thus subsist and grow. "To every one is given the manifestation of the spirit for his benefit." 1 Corinthians, xii. 7. Each has his portion, analogous to the "daily bread" mentioned in the Lord's Prayer.

The disciple pausing to salute a man by the way would thereby give off from himself somewhat of his interior force, and in a degree would let himself down from his previous exaltation of mind. Instead of seeming to "eat angels' food," he would feel himself to have come into a grosser world and atmosphere—to be indeed "of the earth, earthy." His enthusiasm would diminish; there would be a weakening of purpose, a willingness to pause, vacil-

lating, and perhaps an abandonment of the work altogether. Only those who are strong, "who are of full age, having their senses exercised to discern good and evil," are able to meet the drain which such things occasion.

In the interior life, that department of our being where we exist when we apprehend our closeness to the higher agencies, we feel these things most sensibly of all. In that world thoughts, ideas, spiritual emanations, such as the tempers and moods of persons, and the peculiar influences radiating from them, are tangible things, which add to and nourish us, or take from and otherwise injure or impoverish us. What, as elsewhere considered, is the greatest prudence, is here the supremest wisdom. When the soul approximates and is receiving inflowing life from the Source of Being, the attention belongs there, and there alone. The mingling in the life of persons external to us, yielding to them what should be kept for ourselves alone, and absorbing their peculiar spiritual influences instead, as well as their distracting words and ideas, is noxious, destructive to the divine life, and evil in more ways than can be described. The Quakers were not far amiss. The soul must be withdrawn in a silent waiting, and so hearken for the divine voice. The impulses which stir in the unallayed tumult of the feelings are the promptings of passion and the external self—not of God. The practice of tranquil tarrying, introverting the attention, is the proper safeguard of the interior life and spirit. So far as may be, external objects and topics must be excluded; it is necessary to "salute no man by the way."

"A god is here," cried Telemachus. "Be silent, then," said Ulysses, "and restrain your thoughts."

Plato taught all this in his dialectic, as no man before of an Arian race had ever done. According to him there is in every one an indissoluble *nexus*, or connection between himself and his final destiny. Man is suited to his fortunes because these are the fruit of his character. There are ideas and principles in

the human soul which are derived, not from instructors and external sources, but are anterior to all experience. For their development experience furnishes the occasion, but is not their originator. This is that interior faculty which Kant designated the pure reason, which transcended every other of our powers. All that the great philosopher essayed to do, was to bring those ideas, innate and born with the human mind, within the field of our consciousness, on the one hand; and, on the other, to lead men to recognize them and their existence.

Jesus, in his plainer, more direct way, seems to have had a like aim. He preached the gospel of the kingdom of heaven, not as an institution to be established in the great world, but as a power existing and to be evolved from the hearts of men. "It cometh not with observation," said he to the Pharisees; "it is within you, like lightning in one part of the sky shining to the other." Those having that gospel to proclaim, must not be led from the interior thought to the contemplation of things extraneous and relatively unimportant. Their object permitted no diversion, not even the seeking to produce an effect on others. The Highest dwells in the heart; and he that would commune with Him, must abstain from long prayers in synagogues and at street-corners, and withdraw into the secret chamber.

Hence, we can perceive that what was wisdom for the Seventy is equally so for all. It was no arbitrary command; it instilled no refined selfishness; but was a safeguard against every evil and a sure conservator of every good. It is not the food which is for our nourishment, that we should give to others as charity, but rather the strength and exertion which that food enables us to put forth. So, therefore, as the highest prudence and sagacity, every one should do his own work—not that which a taskmaster appoints for him—and do it in singleness of heart and purpose, and to that end, "Salute no man by the way."

To make money—Get an appointment in the mint.

DISEASE AND ITS TREATMENT.—No. 16.

BY ROBERT WALTER, M.D.

THE MODUS OPERANDI OF DISEASE—ACUTE DISEASES.

WE come now to an examination of,
 2d. *Acute diseases resulting from causes less apparent (than medicines or other poisons).*

In its essential nature, disease has its complete definition in two words, viz., "remedial effort." Such a definition, as we have already shown, is very much at variance with popular notions. These make it a "thing," an "entity," a "hydra-headed monster," a something that lurks in the air, hides itself in the clothing, creeps in at our doors and pounces upon us unawares. It is a vampire that sucks our life's blood, and from which we can never be secure, no matter how careful and wise we may be in our actions.

It is true, however, that these notions have not taken definite form in the popular mind. No one has directly put forth such ideas. We are simply expected to infer that disease is this monster because of the way it is spoken of by the people not only, but by medical men who echo the opinions of the people. The yellow fever, for instance, has been extremely virulent at Shreveport, La., the past season, and people have been alarmed and panic-stricken because of it. Some newspapers showed that it was the result of extremely filthy conditions of streets, and of poisoned atmosphere from other causes at that place; but a committee of medical men, after carefully examining the subject, declare that they have "conclusive evidence that the disease was imported from Cuba." Just how it came, whether packed in barrels, or stowed away "loose" in the hold of some ship, they have not said; but that they consider it a "something," their language leads us clearly to infer. Nevertheless, there is a vague indefiniteness concerning it that is very aggravating to any philosophical mind who has given thought to the subject. On examination he finds

that its nomenclature is extended to an almost unlimited extent. Disease is set down as having a thousand different forms, each with its own distinctive name, and each repeating itself thousands on thousands of times. It was yellow fever in the singular number that was imported from Cuba; but we find many cases of it as the result of that importation. Was it then one yellow fever that was imported, or were they a thousand? If it was one, where did all the others come from? if thousands, they must be very subtle monsters not to be detected.

A philosophical definition of fever would save us from such wretched declarations as these Shreveport doctors have made. Yellow fever is not a *thing* with an indefinite existence, and hence never was or ever will be imported except in the patient. *The immediate cause of the fever is poison in the blood, and the fever is an action of the system to cast that poison out.* To say, therefore, that the fever was brought from Cuba, is silly twaddle; for *actions* are not *things* that are carried from place to place. This palming off upon popular ignorance the notion that disease is a *thing* that travels here, there, and elsewhere, is a crime that the future may forgive, but will not forget. The exciting cause of the fever may have been brought from Cuba; but the fever never; and the exciting cause or seed would amount to nothing if the soil had not been previously prepared. The Vicksburg editor was undoubtedly right in ascribing the fever to the fearful filth and horrible stench in and near the town, no matter what professional men may say.

The learned report is not without its effect, however, no matter how unscientific it may be. Once more the people are quieted with the satisfactory assurance that disease is a mysterious something not within our control. The old lullaby is again sung; the popular baby

is quieted, and men confidently resign themselves to the "dispensations of Providence."

The great error is in the failure to discriminate between the *causes* of disease and the disease itself. And it is an error that pervades medical systems. The *modus operandi* of medicines, so called, is founded upon this fallacy. Because certain medicines, when introduced into the living organism, cause certain actions in that organism, we are gravely informed that these actions are the actions of the medicine. Because a dose of ipecac in the stomach occasions vomiting, therefore we are told that it is the ipecac that vomits. Calomel occasions violent action in liver and bowels, therefore, it is the calomel that acts. The fallacy ought to be evident when we consider the nature of living organisms in contradistinction to that of dead things. Living things act while dead things cannot act; therefore whenever action occurs between the living and the dead, it is to be ascribed to the living and not to the dead.

Yellow fever contagion—or the poison in the air which may, under favorable circumstances, occasion yellow fever—is not by any means the yellow fever. They are as distinct as life and death; for the one is a dead *thing*, while the other is a living *action*. This is still further proved by the fact that no amount of contagion will produce yellow fever in some persons; and again by the fact that the same causes will produce very different diseases in different persons. In one person yellow fever contagion "is sure death;" in another person the same contagion in the same quantity will occasion no disease whatever, and in yet another only a mild attack. So of all other diseases. The same causes will occasion different diseases in different persons.

And medicines or other poisons are not less variable in their actions than other causes of disease. The medicine that will occasion violent action in the living person, will produce no action in the dead person. Again, the same dose of medicine will cause entirely different

action in one living organism from what it does in another. And yet again, a medicine that occasions a certain effect in a certain dose, will have the very opposite effect in a different dose. No man can explain these facts except on principles the opposite of those adopted by the medical profession.

The *modus operandi* of all diseases are essentially the same, and hence what we have already said in the two preceding numbers of this series, applies to our present subject. Diseases differ from each other only because of difference of constitution in patients afflicted and difference of exciting causes.

Fever is an excellent representative of acute diseases in general, and hence we will employ it as the illustration of our subject. It has divisions and subdivisions without number, but all may be comprised under three heads,

1. Intermittent;
2. Remittent; and, 3. Continued.

The intermittents are caused by malaria from decaying vegetable substances, in addition to the use of improper food and drink, with bad ventilation of sleeping-rooms, public halls, etc.

Remittents result from the same causes in different proportion on different organisms; while the continued fevers, such as typhus, typhoid, etc., have, as causes, in addition to the above, emanations from barnyards, privies, sewers or decaying animal matters.

Of the subdivisions, ship-fever depends largely upon the foulness of the air in the ship; hospital fever, upon foul conditions of the hospital; jail fever, upon close confinement and foul cells. Spotted fever is simply typhoid occurring in a patient whose blood and tissues are very foul; yellow fevers occur in persons who have been debilitated by excessive heat and have breathed foul gases emanating from decaying substances in a torrid clime, in addition usually to specific contagion. Eruptive fevers, such as small-pox, plague, measles, scarlatina, etc., are the result of some specific poison usually contagious, and which reproduces itself in the circulation.

Fevers are malignant or non-malignant, and whether the one or the other, depends entirely upon the conditions of the patient afflicted. If his blood and tissues are foul, consequent upon long-continued bad habits, or upon the persistence or prolific sources of the causes, we may expect a fever of a very malignant type; while on the other hand, if his habits have been good, and the causes of the fever but transient, it will be of the non-malignant type.

Fever, then, is a process of purification, and the first step is to prevent the building up of more tissue. The old structure is being broken down, the rubbish is being cleared away and carried out, and all the energies of the system are employed in this work. There is now no appetite, for there is no need for food, or at least no power to dispose of it; and hence the first indication of treatment is to *stop stuffing*. No food, certainly no solid food, should be fed to any fever patient until he has passed the crisis; and then it should be furnished to him with great care, so as to avoid overtaxing the depleted energies.

No reasonably intelligent physician will neglect to furnish his patient abundance of fresh air. The plan once followed of shutting the fever-stricken invalid into a close room and depriving him of his great boon, was never conceived except in the brains of a mis-educated and superstitious empiric. It is in violation of common sense and common decency. That a sick one should be compelled to inhale and re-inhale his own excretions, from day to day, is silly, wicked, absurd; and has raised more tomb-stones in our land than doctors have ever raised from the bed invalids.

Pure water, abundant and free, outside and inside, should also be furnished. The bowels should be moved by tepid water injections, and the patient kept quiet and in a well lighted room.

BALANCE THE CIRCULATION.

The system furnishes all the power that can be employed in this process of purification, and all that the physician can

do is to direct this power into the proper channels. Balance the circulation is the first and only requisite in the treatment of any disease whatsoever; for unbalanced circulation is the unvarying condition of every sick person, and to restore the balance is to restore health. If the head is hot, cool it; if the feet are cold, warm them; and keep the whole body at an even temperature. The temperature of healthy blood is 98 degrees, but in fever it rises to 105, 110, and even higher. These high temperatures should not, if possible, be permitted. To do so is to endanger disorganization, and death. While water is to be had, the temperature can be modified, and usually controlled, by cold, tepid, and even warm baths—by packs, head pourings, full baths, etc., the indication being to use that which seems most agreeable to the patient. For nature, except when greatly perverted, is the guide to all rational treatment.

In the low fevers heroic treatment is not indicated, and cannot be employed. Good nursing and such treatment as has been indicated herein, excepting only the cold water processes, are the appropriate measures. Nature is herself doing all that can be done toward removing the proximate causes; let the physician supply her with the conditions, viz., with what she needs.

In the low remittent or intermittent fevers the wise physician will discriminate with regard to food, and so avoid extremes.

The heat of fever is caused by intense vital action, as has been heretofore shown. Let the physician radiate this heat by evaporation, without stopping the vital action. The chills indicate determination of the vital forces to the internal organs; let the physician do what he can to warm the patient, and so relieve the internal congestions.

There are three stages of fever, the cold, hot, and sweating stages. To balance the circulation is to warm the patient in the cold stage, cool him in the hot stage, and let him rest during the sweating stage. After this, the patient's

clothing may be changed, and he rendered as comfortable as possible.

A fever once commenced will continue with greater or less violence, according to the vigor of the patient, until the causes are removed or the strength is exhausted. If the former is accomplished, the patient will get well and strong again; but in the latter case, he dies. In ninety cases out of one hundred, even under the most unfavorable conditions, the former happens under hygienic treatment; while under drug treatment, this percentage is cut down one-fourth or one-third. The difference in the results is due to the fact, that the one method of treatment removes the predisposing and exciting causes, and never attempts to stop the fever in any other way; while in the

method, the effort is to stop the fever by adding to the causes in a degree sufficient to prostrate the vital forces, or in a manner that will divert them from the effort they are making. In the former case, when the patient recovers from the fever, he returns readily to much better health than he had before the attack, because his system is purified; while in the latter case, if he lives, he is burdened with existing causes of disease that cripple his powers of body and mind, or render him a pronounced invalid for life.

SCIENCE AS KNOWN TO THE ANCIENTS. —In Egypt mummies have been found with teeth filled with gold, and in Quito a skeleton has been discovered with false teeth secured to the cheek bone by gold wire. In the museum at Naples, among some of the surgical instruments discovered at Pompeii, there is a fac-simile of Sims' speculum. —*Medical Record.*

POPULAR PHYSIOLOGY--ILLUSTRATED.

CHAPTER VIII.

DIGESTION.

HAVING treated of the framework of the body (bones and ligaments), and the moving fibres (muscles), in the preceding chapters, we are now prepared to consider the individual functions—the first in order and most important of which is digestion.

Digestion comprises all of the processes of nutrition which are performed in the alimentary canal. It prepares the food-material for absorption into the circulating system, and in its broadest sense embraces the prehension of food, its mastication by the teeth, its admixture with saliva in the mouth, its solution and chymification in the stomach, its chylification and absorption in the intestines, and the expulsion (defecation) of its waste and non-usable matters.

A view of the whole range of the alimentary canal is presented in Fig. 116—a portion of the œsophagus having been removed. The arrows indicate the course of the ingesta.

The abdominal region, which contains the principal digestive organs, is shown in Fig. 117. It is bounded above by the diaphragm, which forms a septum be-

tween it and the thoracic cavity (chest), behind by the spinal column, in front and on the sides by the abdominal muscles, and below by the pelvic bones.

PREHENSION.

The manner in which the human being seizes or takes hold of his food, has an important bearing on the question of his "natural dietetic character." Naturalists agree that his teeth, as well as his whole digestive apparatus, belong to the frugivorous organization, and that normally his appropriate food consists of the productions of the earth, fruits and grains especially, whatever may be said in favor of a "mixed diet," because of his acquired tastes and abnormal conditions. And the manner in which he is organized to seize his food and convey it to the mouth, is another illustration of his frugivorous nature. All animals that prey on other animals have claws and tearing teeth, or something analogous, by which to seize its food and divide it into fragments for swallowing. The hands of man, so beautifully adapted to plucking the fruits, harvesting the grains, shelling the seeds and nuts, and digging the roots, are as far removed as possible from the carnivora or even the omnivora.

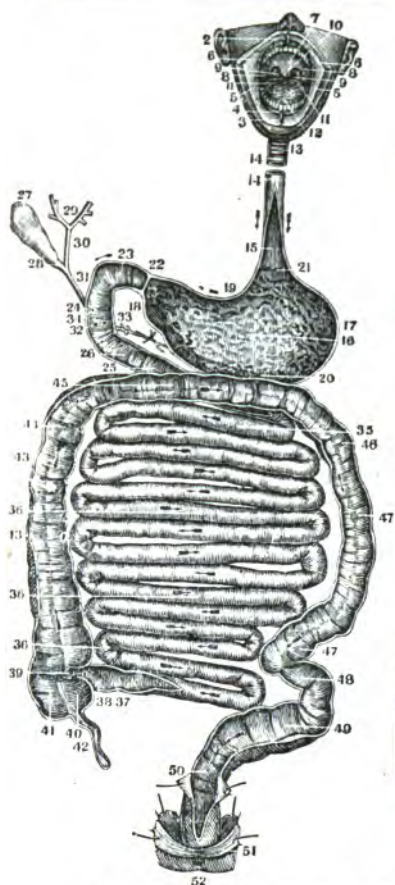


FIG. 116.—THE ALIMENTARY CANAL.

1. The upper lip, turned off at the mouth. 2. Its frœnum.
3. Lower lip, turned down. 4. Its frœnum. 5, 5. Inside of the cheeks, covered by the lining membrane of the mouth. 6. Points to the opening of Steno's duct. 7. Roof of the mouth. 8. Lateral half arches. 9. Points to the tonsil. 10. Velum pendulum palati. 11. Surface of the tongue. 12. Pappillæ near its point. 13. A portion of the trachea. 14. Œsophagus. 15. Its internal surface. 16. Inside of the stomach. 17. Its greater extremity or great cul-de-sac. 18. Its lesser extremity or smaller cul-de-sac. 19. Its lesser curvature. 20. Its greater curvature. 21. Cardiac orifice. 22. Pyloric orifice. 23. Upper portion of duodenum. 24, 25. Remainder of the duodenum. 26. Its valvulæ conniventes. 27. Gall bladder. 28. Cystic duct. 29. Division of hepatic ducts in the liver. 30. Hepatic duct. 31. Ductus communis choledocus. 32. Its opening into the duodenum. 33. Pancreatic duct. 34. Its opening to the duodenum. 35. Upper part of the jejunum. 36. Ileum. 37. Some of the valvulæ conniventes. 38. Lower extremity of the Ileum. 39. Ileo colic valve. 40, 41. Cæcum. 42. Appendicular vermiformis. 43, 44. Ascending colon. 45. Transverse colon. 46, 47. Descending colon. 48. Sigmoid flexure of the colon. 49. Upper portion of the rectum. 50. Its lower extremity. 51. Portion of the levator ani muscle. 52. Anus.

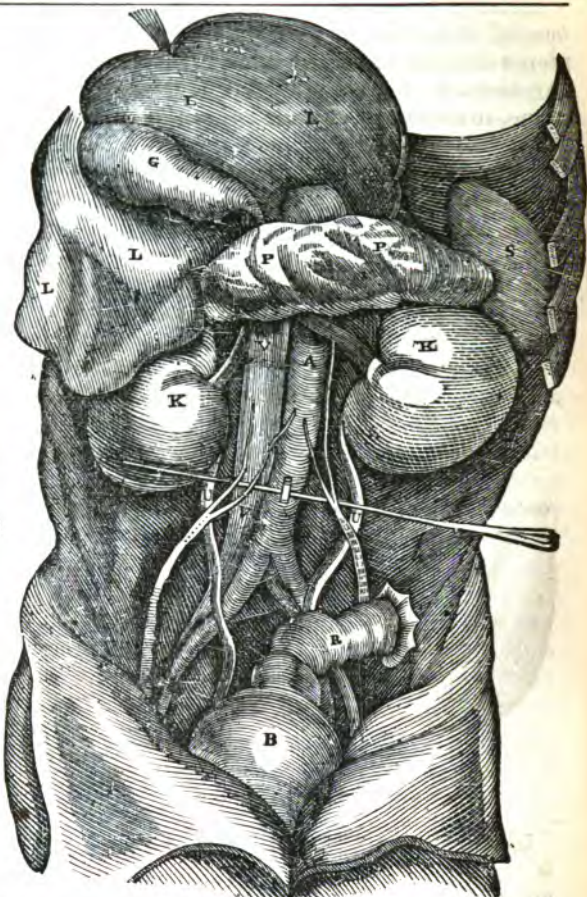


FIG. 117.—ABDOMINAL CAVITY.

In Fig. 117 the intestines are mostly removed. L, L. The liver, turned up to show its under surface. G. Gall-bladder. P. Pancreas. K, K. Kidneys. S. Spleen. A. Descending aorta. V, V. Ascending vena cava. R. Rectum. B. Bladder.

MASTICATION.

The existence of teeth implies the necessity of masticating the food before it is swallowed. Even the infant masticates, in the physiological sense, the first meal it takes from its mother's breast. The object of mastication is the admixture of each particle of food with a particle of saliva, and this the infant accomplishes by taking its milk drop by drop. If the infant swallows its food too rapidly, as often happens when fed from the bottle, it will either vomit it up or suffer of indigestion. And no person, infant or adult, can make the least use of food unless it is thoroughly masticated. This is

one of the reasons why milk is not a proper article of food for adults, and why any dietary consisting largely of broths, soups, mushes, or slop-food of any kind, is unwholesome.

A complete set of the permanent teeth, with their nervous connections, is shown in Fig. 118.

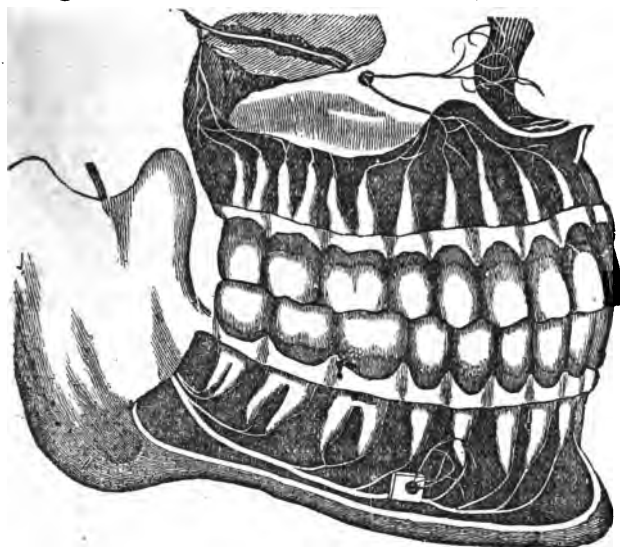


Fig. 118.—THE PERMANENT TEETH.

In this illustration the bony matter is represented as carefully cut away to exhibit the roots of the teeth, and the nerves which connect them with the brain.

Nothing conduces more to the preservation of clean, sound, pearly teeth than a large proportion of solid food, eaten slowly. Indeed, nothing else can preserve them; for, like all other organic structures, they perish with disuse. There is no other reason than abuse or disuse why the teeth should decay before the general organization does, than applies equally to the eyes or ears, fingers or toes. Were they as much maltreated as are the teeth, there would be as many eyeless, earless, fingerless, and toeless young men and women in the world as there are now toothless ones.

There is an important lesson in the following paragraph, which we copy from "Digestion and Dyspepsia:"

"The Indians are proverbial for their

good teeth. We have examined many Indian skulls, and have frequently found the teeth worn down to the gums, with not a speck or decayed spot to be found on them. Besides, we do not find on Indian teeth tartar, or salivary calculus, as is too often the case with civilized men's. There may be many reasons why

the teeth of Indians are in better condition than the white man's. The chief one, perhaps, is that they give their teeth ample exercise. If a cow is fed on food that requires no mastication, her teeth become decayed. If she crops the grass with her incisors, and grinds it with her molars, they will last her life-time in good condition; but let her be put into a stable and fed on still-slops, and the teeth at once begin to decay, as also the bony structure in which they stand. The Indian eats parched corn. Having no grist mill, he grinds his food with

his teeth, and the result is, every tooth is exercised. If we eat porridge, broth, stews, and everything else cooked soft, and yet no exercise for the teeth, they become to us almost useless; the gums become unhealthy, the teeth decay, and give us a world of trouble. Moreover, the Indian sleeps with his mouth shut, breathes through his nostrils, and does not draw the cold air rapidly over his teeth. This is true of all animals. The canine and feline tribes, that pant when they exercise violently, open their mouths and then breathe through them; but they sleep with their mouths shut. The celebrated Mr. Catlin, who writes on Indian habits, attributes bad teeth to the white man in consequence of sleeping with his mouth open."

THE wedding anniversary celebrations occur as follows: Three days, sugar; sixty days, vinegar; 1st anniversary, iron; 5th, wooden; 10th, tin; 15th, crystal; 20th, china; 25th, silver; 30th, cotton; 35th, linen; 40th, woolen; 45th, silk; 50th, golden; 75th anniversary, diamond.

ENGLISH AND AMERICAN WOMEN.—THEIR HEALTH AND PHYSICAL HABITS.

HERE is a calm, kindly, and considerate view of the question by a lady, in *Scribner's Monthly*. Comparisons are said to be odious; but we are forever making comparisons, nevertheless. There are in the following, Hygienic suggestions which it will be well for our people to act on. If we can learn of the English, let us do so; they certainly are learning some things from us; and reciprocity is a proper spirit to cultivate.

There is much loose talk in regard to the health and physique of American women, as compared with English women, indicative of very great carelessness in noting what and where the differences are, and the causes or conditions that produce those differences.

It is fortunate for America that, in comparing her women with those of her ancestral nation, she compares them with what are acknowledged to be the finest women in the world. Fine in the English sense; for the expression, "a fine woman," so often heard in England, refers wholly to the physical qualities, and not as with us, to the intellectual and moral qualities. English women are plump, rosy, and healthy; they are the mothers of large families, and they often rival their daughters in youth and beauty. This is almost equally true of all classes, except the wretchedly poor in the towns and cities.

To get at facts that may be valuable to Americans, it seems to me best to place side by side the classes that most nearly correspond in the two countries, and examine the conditions that surround and develop them. I have now been more than two years in England, and I have kept constantly before me the consideration of the health and physical habits of the women, and feel that I can speak upon this matter without danger of much misrepresentation. Considering the rural or farming population in America, I do not know any charges that can be reasonably made against the health of the women as compared with that of the men. The food is excellent, and there is no lack of exercise and fresh air. Barring the irregular climate, probably no class of people in the world have better conditions for securing a fine physical development, or better habits—with the one exception, that both men and women overwork, in the greed to get forward in life. The girls are strong, and on the average would not suffer very much in comparison with English girls. The women live as long as the men, and are not more frequently incapacitated for their regular duties than the men are, though they, for the most, rear families of from five to ten children. This

physical equality between the men and women of the rural populations holds for the country at large. In New England there is too little muscle for the nerve, but this is equally true of both men and women, and is probably attributable to the variable climate, accompanied with overwork, or the lack of leisure to properly protect themselves from the climatic changes. In the more newly-settled districts of the West, the men and women suffer alike from the malarial influences, and it is as common to find invalid men as invalid women. Of the class in England that most nearly correspond to American farmers, there are two divisions—the farmers or tenants, and the laborers whom they employ. Among the former you find as fine, perhaps the finest physique of which England can boast. Here are all the requisite conditions: good air, good food, and sufficient exercise, without care or fatigue. The life of this class is modeled after that of the landlords or country gentry, as far as it can be with the limited means. Laborers do the work on the farm, and servants the work in the house. The farmers oversee the farm work, engage in country sports, and idle away the rest of the time; and the women direct the housekeeping, and do more or less of the sewing and light work, or none at all, as accords with the income. There is little effort to save by their own industry. There is neither expectation nor a very active desire to improve their social condition. They live as they have been accustomed to live, and as their associates about them live. The family is provided with a cook and nurse, and, as the children get older, very likely a governess, and in the more well-to-do families, a housemaid may be added; and among the poorest of them there is almost sure to be a maid of all work. The mothers are relieved from the care of the children, and the daughters are as free from household duties as in the well-to-do families of our towns and cities. The young children are kept in the open air a large part of the time, and the mother and daughters take long walks. The temperate climate, fine roads, lovely lanes, and beautiful rural aspect invite them to break up in this way the monotony of their indoor life; besides, it is a custom to which they were trained in their childhood, and which, like the morning toilet, seems a regular part of the work of the day. Among the laborers the physique is inferior, and this is especially marked in the children, where there is oftener a soft, mucilaginous look to the muscles that indicates underfeeding, which disappears to a considerable degree in the men and women. This class suffers from insufficient food and bad housing, as compared with our rural people, but under the worst circumstances they rarely overwork.

The men are employed by the farmer during the

whole year, but they have little work to do except in the summer, and then the amount they go through is far less than that done by our farmers, notwithstanding the advantage they have in a more temperate sun. The women, for the most part, have still less to do than the men; very few of them work in the fields; the older daughters go out to service, and the mother and younger daughters take care of the house, but the cottage is small, and the baker does the most of the cooking, and unless lace-making or some similar employment is introduced, the women have very easy lives. They do not trouble themselves about old age and rainy days. England abounds in charitable funds, and one has only to fulfill the conditions of need to get the benefit of them, and these people are kept too much in a state of patriarchal dependence to feel the pride of independence.

There is still another class of the English rural population, whose nearest representatives with us were the Southern planters. They are the country gentry, titled and untitled, who are either the landlords, or "gentlemen," who scatter in among them in hired houses, almost all of whom, by the very conditions of their admission into this society, are men freed from all money-making pursuits. It is here that we find the peculiar and ideal English life, the life that all conservative Englishmen aspire to. It is these people who constitute the genuine English society, whether on their estates or in London, and you have it in its purest form on the estates. Most of these families spend the greater part of their time on their estates, and many of them the whole time, except a few weeks in London during the season. The father and oldest sons pass their time in the well-understood routine of a gentleman. They shoot and hunt with the changing seasons, ride, drive, and exercise the patriarchal patronage over their tenantry devolving upon their position; read, lunch, and dine. The mistress of the house spends half an hour in the morning in giving orders to the butler and her maid, occasionally investigates the competence and fidelity of her nurse and governess, and gives birth to her children. Beyond this she has a leisure filled in as custom and fancy direct. She walks or rides; she drives in the afternoon, and pays calls to her friends. In the evening there are dinner parties, from which the guests usually disperse before eleven, and now and then there is a later hall. Trained nurses and governesses are at hand, and the mother intrusts her children to them with the same confidence that men in business put their books into the hands of experienced accountants. The mother leaves home without the children, or sends the children away without her, as suits her pleasure and their needs. The boys, sometime between the ages of eight and twelve, are sent away to a boarding-school, or, if not, they have a tutor at home; and the girls, as soon as they leave the nurse, pass into the constant care of the governess.

Custom prescribes very definitely the duties of nurse and governess, and there is a well understood regimen of food, sleep, clothing, and fresh air for the children, varying with their ages. Girls from eight to twelve often boast of walking as many miles as they are years old. Till they are sixteen or seventeen years old the girls scarcely form a part of the family. They breakfast with the family, and the family lunch is to them a plain dinner; but they have their tea with the governess, and usually see nothing of the family dinner, and but little of the family society. When they are not at their lessons they are usually out of doors with the governess, who is expected to look after their physical education as carefully as she does their intellectual and moral. Here again we have the conditions essential for a fine physical development, a simple and carefully chosen diet, air, exercise, and almost perfect regularity in the habits.

Some of these families spend from four to six months of the year in London. In this case the children are often left behind in the country, for a part of the time at least; but when they are in town, the life goes on as nearly as possible as it did in the country. The nurse takes the children to the gardens, and the governess walks with those under her charge. If any of them begin to droop they are sent to the sea-side for a few weeks, or back into the country.

When the girls leave the governess, they enter society. If the family remain in the country, it is easy to see that there is no excitement or fatigue that is likely to interfere with health, consequent upon this transition. But to complete the feminine phase of gentry life, we must follow these families through a London "season." With the exception of the Bishops and Law Lords, the upper house of Parliament is composed wholly of the heads of the titled families of the landed or country gentry, and a very large part of the House of Commons consists of the sons in these same titled houses, and the untitled gentry. This of itself necessitates the residence in London, during the Parliamentary season, of six or eight hundred families of the very cream of English social life, of people who have all that birth, wealth, and university training for the men can give them. This makes a magnetic center to which the whole kingdom gravitates.

Everybody who can afford the time and money is in London during more or less of the Parliamentary session. With the gentry families it is usually only a question of money and health, how much of this time they shall spend in London, and if there are marriageable daughters, there is an especial effort to give them the advantages of London society.

These families have their own houses in London, or they take suites of apartments, where they have almost the same freedom and independence. They bring their trained servants, or they get oth-

ern that serve them almost as well. They have their own horses for riding and driving, or they hire. The nights are quite regularly given up to society, but the days are just as steadily given to recuperating from the past nights. Society is the avowed occupation. They retire late and rise correspondingly late. They go out for a ride or a walk in the morning, and for a drive in the afternoon. The young women who are most in society are the most prompt to enter Rotten-row at the appointed twelve o'clock, or they are out for a ten o'clock ride, before the throng comes, or they walk along the course to see others ride, or they visit the exhibitions and galleries.

But the four or five months of the London season is not one solid term. Those who come to town before Easter go back to the country for the Easter holidays, and many of them leave town again at the Whitsuntide recess of Parliament, or, at least, there is a cessation of gayeties; and they go to the sea-side for a few days at any time they need rest. They do not allow themselves to get exhausted. This regard for health is a part of good breeding. Perhaps no more accurate illustration of aristocratic life could be found than is furnished by the Queen's household, whose doings are reported to the public in the daily *Court Circular*, published in almost every paper of the kingdom. The Queen lives at Balmoral in the Highlands, and at Osborne at the sea-side, and comes to Windsor and Buckingham Palace for a few weeks every now and then during the season.

But English society is less exhausting than American society. Individuals make less effort to produce an impression. They talk little, or not at all; and are as composed as though they were quietly at home. English families are known, or else no one wishes to know them; and English women need only to be named, and to be seen. This at once discloses their rank, wealth, and personal attractions—the considerations that determine their opportunities for marriage. Graceful and winsome manners are worth something to English women, but not enough to make society a very positive incitement to personal endeavor. Except from the large balls, they rarely reach home later than twelve or one o'clock, and at the end of the season they have only a little less vigor than when it began, and they have six or eight months to recover, distributed between the Highlands, the continent, the sea-side, and their quiet country homes. During the most of this time the pursuit of health is the avowed occupation, and society is simply an exhilaration. These habits can in strictness belong only to families of large means, but they represent the ideal life of the whole gentry class, and characterize the actual life to a wonderful degree; and it is this class that furnish the social models, that are imitated by all the other classes of English people, just as far as the incomes will allow. The class that comes next to the gentry class, the upper middle-class, includes the more prominent members of the pro-

fessions, the large manufacturers, and wholesale traders. The most of this class spend the larger part of the year in the towns and cities; but they have a long outing of from two to five months in the country, or at the sea-side, in the summer or autumn, and various other shorter outings, as pleasure or sanitary needs may suggest; and when they are in the city they have leisure and faithful servants, horses and carriages, and economical cabs. The social and sanitary habits of this class are so similar to those of the aristocracy, that very little difference is seen in the physical results. They spend nearly as much money, in nearly the same way. Society is a little less exhausting in the multiplicity of its demands; but, as an offset to this advantage, less time is spent in the country. But if any one of the family gives indications of declining health, a change of air is thought desirable, and questions of convenience are not allowed to obtrude. The parents go away without the children, or the children are sent away with the nurse, or governess, till health is restored. The sanitary conditions of a place are the first considerations in determining the location for an outing, and in every nook of England there are professional lodging-house keepers, who have accommodations and prices suited to all grades of lodgers who can be induced to come to them.

Below these are the lower middle-class, but keeping as close up to them in the habits of life as the smaller means will allow. The fathers and sons are in the small wholesale, or larger retail business, or fill the lower ranks of the professions, or hold the better clerkships. The women have, perhaps, more absolute leisure than in the classes above them. Society makes fewer demands. When the occasion requires, these families may diminish the expenditure for dress, they may cut down the table luxuries, they may take a smaller house, and decrease the necessity for servants; but they are, last and not least, disposed to economize by taking upon themselves the duties of servants and seamstresses. They have shorter outings than the class above them; but they, for the most part, get to the country or sea-side for several weeks in the summer, and make frequent day-excursions into the country, and walks and strolls take the place of rides and drives, while the children are "perambulated" about by the nurses. But, on the whole, this class have a purer physique than any other, except those at the very bottom, where the necessities of life are sparingly provided.

This is the lowest class where they can lay any claim to the title of "lady" and "gentleman." The line between this class and those below is more marked than between the successive classes above, and there is often almost a death struggle to keep above the occupations and the associations of the class below. As a consequence, there is in this class a large number of spinsters and bachelors. The men and women are more frequently overworked. Families keep fewer serv-

ants. They are forced to economize, and often to keep up an appearance which their means do not warrant. Of no other class of English people would this last remark be so true.

Below these are the "shop-keepers," or small tradesmen. In many cases the families occupy rooms behind and over the shops. But the cheapness of domestic labor permits, and custom requires, that these homes should be supplied with more or less servants. As the trade grows larger the physical conditions of the family improve. They have a larger house, a more airy situation, and a home in the suburbs, or a little distance in the country, as soon as the father can afford the time for the travel back and forth.

As fast as an Englishman enlarges his income he improves his style of living, but not so much by adding to the showy expenditure as by supplying more real comforts, and sanitary advantages to the family. A man's social position is rated very much by the solid domestic comfort he commands, and his surest plan of improving his position lies in this line. But, whether living in the city or the country, the young children are kept in the open air a good many hours each day. The uniform temperature allows it, custom requires it, and the nurse expects it. Children thus acquire a fondness for the open air, and under the governess they are trained into regular habits of out-of-door exercise; and, as the daughters have no work to detain them at home, they continue these habits after they are grown to womanhood.

Excursions and outings are possible to all classes above the very poorest. A seat in a third-class railway carriage can be had for a penny a mile, and this is considerably reduced by taking advantage of "return tickets," which, except for very short distances, are available for the second day, or from Saturday to Monday. Besides this, there are constantly to be had "excursion tickets," which reduce the rates about one-half. There is no difficulty in getting lodging and board suited to people of all grades of wealth. These outings form a part of the regular and calculated outlay for the family, even more than the seasonable new suits of clothes. Among the artisan class the conditions are less favorable. If the women work in the factories, and have the same hours as the men, they, of necessity, have a harder life than the men have. Cares at home, and some attentions to dress impose more actual labor, and they cannot quite as conveniently get out in the evening for exercise, or brave the weather for strolls in the country, as chance occasions may give opportunity. If they go into shops, the physical conditions are worse. They have long hours, low wages, few holidays, and the necessity of dressing above their wages. If they take positions as domestic servants, in all well-to-do-families, they have excellent physical conditions, good food and light work.

In an English house there are more servants and more service than in corresponding American

houses, but less actual work is done. The bread is got from the baker, and many of the cakes and pastries as well, and the laundry work is, for the most part, given out.

Of the lowest class I cannot speak from any extended observation, but they seem to me to have fuller muscles and better color than those who hold a similar position in our cities.

To sum up the conditions that are obviously in favor of producing a fine physical development in England, we must note the leisure afforded in all grades of life, except the lowest and artisan classes in the towns and cities; and even here, though the hours may be as long as with us, there is more complete rest when the task of the day is finished. The odd hours are much less likely to be turned to some extra account.

No small importance attaches to the regularity of habits, due to the fact that most families continue in about the same circumstances of life to which they were born and trained as children. Alongside of this comes the equable climate, which induces an equable flow of energy, and its consequent and equable appetite, and conduces in many ways to produce regularity of habits. Much is due to the large supply of excellent domestic service, and this, again, to the fact that servants are satisfied to be servants, and expect no other promotion in life than such as comes from improving the quality of their service; and, in general, the more permanent conditions of society shut off the eager anxiety and overwork that come from our efforts to economize help, and get forward in life. Considerations of comfort and health are uppermost. There is a deep national consciousness of the importance of health, and trained appetites which have almost become instincts in its favor. The houses are well aired, and kept at a moderate temperature. The drainage is carefully looked to. So much pains is taken with these general sanitary conditions that London, though twice as large as Paris, and three times as large as Brooklyn and New York taken together, has the smallest death-rate of any even moderately large city in the world.

To account for the national bias to these excellent physical habits, we must look to the origin and habits of the aristocracy and the authoritative social position of this class. The feudal leaders got their places by brute force. It was the soldier who won fear and favor from the king, and a reverence for brute force still keeps its place in the nation, though the demand for it has so much diminished. Society has never been overturned since the Norman Conquest. The feudal forms mold the present life. The ideal manhood is that of a baronial chief. But in accounting for the physical ideal of the aristocratic class, we are not to omit the consideration of the honor attaching to the age of a family, and the importance of health outside of, and above everything else in, its relation to the continuance of the family; and this,

perhaps, influences the physical habits of the women even more than those of the men. Parents understand that a fine physique comes next after birth and wealth in its influence towards securing for the daughters a favorable marriage. The oldest son of an old family, or of a family that hopes to become old, would rarely be willing to ally himself with a physically weak woman, without a good deal of compensation in the way of superior position or superior wealth. Hence physical training for the daughters is never lost sight of by the parents, and is eagerly accepted by the daughters themselves as soon as they have begun to consider the main chance in life.

The wealth and political power of the aristocracy makes them the natural social leaders, and the affectionate admiration in which they are held by the other classes is an additional reason why their manners and habits go down as the models through all grades of well-to-do life; and it is not too much to say, that the children of all these classes are so thoroughly trained into good physical habits that these habits remain with them as a second nature.

Looking to the lives of the families that make up the populations of American towns and cities, we find everywhere an effort to make the best possible appearance for the outlay of money. Except in the wealthiest families, the appearance exceeds the means, while, in consequence, the comfort is below what it ought to be. Good domestic service is scarce, and mothers can rarely free themselves from the intimate supervision of every department of the housekeeping, any more than they can from the constant oversight of the children. They can neither leave their homes in pursuit of health, nor send away the children; and the governess, so indispensable a help in an English family, is rarely seen with us. In the place of home instruction, the children are sent to school, and this often interferes with health by preventing the application of proper and timely restoratives. The child is unwilling to fall behind his class, and this leads the parents to neglect the remedies that could readily be applied under the system of tutors and governesses. While English mothers only occasionally see their children, American mothers are almost constantly with them, night and day. This is due largely to the inferior quality of help, but not a little to the national sentiment that imposes this upon the mother as an unconditional duty. The orderly administrative English woman contents herself with seeing that her children are well taken care of. The more sympathetic and affectionate American woman overwearies herself in devoting her constant personal attention to their care. Children are too little in the open air; nurses are untrustworthy; but, more than this, there is not with us, as there is with the English, a systematic plan of keeping them in the open air, just as there is of giving them food. The absence of a regular system is largely due to the changing

conditions of our families. Our farmers have no occasion to trouble themselves about fresh air and exercise. Enough of these are incident to their regular duties, and the children are put out of doors to save the trouble of taking care of them in the house. When the sons and daughters of these farmers set up life in the city, they do not consider the changes that ought to be made in the domestic regimen. They are intent upon the idea of economizing and getting forward. American thought limits itself to the present generation. No one thinks about "founding a family;" and, as a matter of fact, very few families remain long upon the foundation energetic parents have made for them. There is little thought about health, except as a means of present success. The continuance of the family scarcely enters into the consideration.

As our families advance in wealth, the natural routine of duties for the women involves less exercise, and as a sanitary offset, there should be a corresponding increase of artificial exercise; but this is not generally the case. They lack the habit and appetite for out-of-door exercise that belong to English women of corresponding wealth. The life in every respect is quite irregular. Families do not remain long enough in the same grade of wealth to allow the different elements of their lives to get well adjusted. Our town people spend very little time in the country. The fathers and sons are in business, and cannot get away, except for a very short holiday at best. Good, unambitious clerks, like good, unambitious domestic servants, are scarce.

Those below the ranks of the decidedly wealthy rarely get out of town, even for a few weeks, unless driven by exhaustion and incipient disease. There is no regular provision for outings as with the English, in order to avoid the conditions where disease will be possible. But the course pursued by the English would be impossible for us. Our life does not afford the conditions. We have no cheap railway trains, because we have not a large class of people who are willing openly to avow the social position that traveling by cheap trains indicate. There is little cheap board to be got. Our country people and villagers will not be troubled with strangers who do not pay them well. A demand for cheap country board would doubtless create a supply, but the trouble lies in this, that there is no national consciousness of the importance of health, nor an habituated instinct towards the best methods of securing it. But scarcely more is to be attributed to want of a regular system of out-of-door exercise and outings, than to the irregularity in the food, which is equally dependent upon the same absence of a caste condition of society. It is not our farmers, nor, for the most part, our "old families," but the people, who have come into new conditions of wealth and new habits of life, that suffer the ills that result from bad digestion.

Society is very exhausting to American women. Girls know that their marriage prospects depend largely upon the personal impression they make. Hence there is a constant effort to produce an effect in dress, in manner, and in conversation; and all American women know the value of these personal matters in securing social consideration. On the other hand, an English woman understands that when her name has been announced, she has only to sit on quiet exhibition, and await the attentions that may come to her.

Among our town populations I am quite certain that the health of the women is inferior to that of the men. Without having accurate statistics to exhibit, I have the impression that girls are more frequently detained from school on account of illness than boys are, and that a larger proportion of the women are disabled from full regular work than of the men. But if we examine carefully the school life of our girls, we shall find that the origin of this ill-health cannot be attributed to the severe study. The records of any school will show that the majority of those withdrawn on account of ill-health are those against whom no suspicion could rest, that they had injured their health by overwork. The best scholars sometimes injure their health by too close confinement to their studies; but as a matter of fact, I am certain that they oftener protect it by the more regular habits which their school-work induces, and by having before them an aim for the accomplishment of which health is necessary. And if we look to the women who are studying in the colleges, we shall find this to hold true in a still greater degree. These young women are considerably above the average of women in health, and the records show they are not more frequently incapacitated for their regular work than the young men are. Any one who has observed Antioch College as I have, is forced to say that it is not the hardest students who are most likely to decline in health. The greater intelligence and self-control lead to more sanitary habits, which offset the severer work.

American women suffer no more in comparison with English women than American men suffer in comparison with English men; and in both cases I am satisfied that the real difference is not quite what it appears to be to a superficial observer. The brilliant-complexion of English people is doubtless largely attributable to the damp air, which shows its influence upon Americans who reside here. As to the origin of the very plump, meaty-looking muscles that so often characterize middle-aged English men and women, particularly in the less refined ranks of life, I am not quite certain. Ireland and Scotland have the same climate, but the physical aspect of the people is about half-way between that of America and England. We might attribute it to race, and look over to the Teutons on the other side of the channel; but, unfortunately for this, the members of the Society of Friends exhibit almost nothing of

this English peculiarity, and yet they stand high when ranked according to health. I am disposed to believe it is due to the heavy beer and wine which the Friends, Irish and Scotch use more sparingly than the average English people.

When we come to test English women by what they consider their capacity to meet the regular duties of life, or to do severe exceptional work, they do not seem to me to have so great advantage over American women as one might expect. It is no very uncommon thing in England for a girl between the ages of eighteen and twenty-five to be one or two years prostrated on her couch; and I know a good many older women who have been equally unfortunate. I do not chance to know a single American girl who has been an invalid for a similar length of time, and only a very few older women; and, what is very strange, these English girls and women look pretty well all the time. They do not lose their flesh nor their color.

English women are constantly complaining of "bad nights," and breakfasting in their chambers, when they do not look ill. They seem to me to lack the nervous energy, or will-power, that enables our women to struggle against pain and weakness. Among the women who are doing public work, the women who are pressing on the educational and franchise movements in England, I do not know one who would think herself capable of the exhausting work that several of ours go through; and very generally they are less disposed to undergo fatigue than our women are, except in the matter of long walks and rides. Whether this difference is to be attributed wholly to habit, or partly to a peculiar faculty of endurance in our women, I am unable to say; but as a matter of fact, in every grade of life, English women not only do not take upon themselves the severe work of our women, but they would not think themselves capable of it.

The most of the ill health of this country, whether it shows itself in protracted invalidism or acute illness, is caused by gout, rheumatism, and chest and nervous diseases, all of which point to the climate and luxurious living. Our illnesses, aside from those caused by the malaria, particularly among the women, are largely due to weakness, which, in many cases, is to be attributed to over-exhaustion, and in many more to the lack of exercise and fresh air, and irregularities in the food. It is often said that American families decline in vigor after a few generations, and the small New England households are instanced as proof; but, even without any statistical reference, the consideration of our physical habits would afford a sufficient-basis for this prediction.

The climate is against us as compared with England, and in the free struggle for social position that our life affords, doubtless the fittest survives; but a large number of the weaker come to an untimely end, and the strongest have their vigor impaired.

In the changing conditions of our families, it is impossible for us to have fixed sanitary habits adapted to the different grades of wealth, and we must substitute an active intelligence in its place. The increased study of physiology during the last twenty years has done something to awaken the public to a consciousness of the importance of exercise, fresh air, and a wholesome diet. But these principles need to be instilled at a very early age, when they can mold the tastes, just as the English habits do.

Kinder-Garten schools would do much to relieve mothers of the care of the young children, and, if properly managed, would secure for the children the needed open-air exercise, and a general healthful training far superior to what they are likely to get from their nurses and overburdened mothers; and I am disposed to believe we would find it no inconsiderable advantage to adopt the system, very common in Germany, of employing the phy-

sician by the year, whose interest then is to keep the family well, rather than to effect remarkable cures; and under this system more particularly, I am certain, too much stress cannot be laid upon the importance of competent women physicians for women and children, and especially in consideration of the care they would be able to take of young girls.

Unfortunately, we have an ill-trained eye in this matter of physique. Accustomed to see the women of our leading families, the best-bred women, slight and thin, we naturally associate this physique with refinement and ladyhood, and it comes to be the ideal which is admired, and to which girls are stimulated to aspire. The large feet, thick waists, and strong hands of English women might be thought very suitable for comfortable and efficient wives and mothers in America, but they would not help women to marry.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

MILK FOR BABES AND FOR ADULTS.

BY JULIA COLMAN.

MILK is the food appointed by nature for the young of certain species of animals. Therefore, if a man wishes to be young again and "healthy as a child," let him drink milk. This is a fair specimen of the popular philosophizing of the present day on food topics. Let us examine this specimen.

There can hardly be a doubt that good milk contains all the elements needed for the nourishment of a young child. Analysis shows that it is composed of mineral matters for the bones and teeth, nitrates for the muscles, carbonates for the heat, and water for the circulation, in just about the proportions required by a growing child. We might readily infer without analysis that this must be the case, since the healthiest children thrive on milk alone, during the period of their most rapid growth. If it fails to nourish them thoroughly, some fault is predicated of the milk, or some inherent weakness of the child, but these are the exceptions, and not the rule.

It must be noted, however, that the de-

mands of a growing child are different from those of an adult, and therefore the supply must be different. The demands of the system change with the condition of the system itself, and that which is best fitted to supply the demands of rapid growth may not be by any means the best food for the more consolidated system. So far as we can judge, it seems to be in accordance with the designs of nature, that somewhere between infancy and maturity the use of milk should give place to more solid nutriment.

One of the first indications of this fact is the advent of teeth. As their appearance is gradual, it might be inferred that the change from a fluid to a solid diet should also be gradual.

Another indication occurs in the manner of taking the milk itself. During infancy this is done by suction, and this motion of the mouth opens the salivary glands and mingles their contents with the milk, a process similar to the mastication of more solid food. It is then introduced into the stomach in a proper condition for gastric action. This is not the case when the milk is drank after the usual manner, subsequent to dentition.

This difference does not obtain in the eating of milk in small quantities, as a trimming to more solid food.

A still more important indication occurs in the change that takes place in the gastric juice. It is well known that there are variations in this fluid adapting it to the nature of the food habitually used. This is one great reason why a carnivorous animal does not thrive upon vegetable food, and vice versa. Milk first requires that element which will curdle it readily without souring, and this the gastric juice of the young possesses in a much greater degree than that of adults. Perhaps we cannot better illustrate this than by referring to the case of the ox. Those who are familiar with cheese-making, know that the milk is ordinarily curdled by the use of a piece of the stomach of a calf properly prepared, and known as "rennet." This curdles the milk through the action of the gastric juice which it contains; its efficacy being much greater if the calf is killed immediately after suckling.

Now the rennet made from the stomach of a calf is far more effective than that made from the stomach of an adult animal, showing that there has been a decided change in the character of the gastric juice. It is also a fact that while cow's milk can be curdled by the rennet of the pig, it is not done so perfectly as by the rennet of the calf, showing that each animal can best digest the milk of its own species.

We may add, in passing, that the character of the gastric juice in individuals is influenced to some extent by the character of the food which they habitually take. This capacity for adjustment man seems to possess in a greater degree than most other animals. But it does not follow that these adjustments do not sometimes tax the system severely, and reduce its capacity for exertion in other directions, no doubt very often shortening life when greatly contrary to nature.

With regard to a milk diet, though an inherited predilection for it and the habit of using it in maturity might make its digestion more easy than it would

otherwise be; yet it would not necessarily follow even then that it was in all respects the food best adapted to benefit the system, and we must again recur to the indications of nature to gain a clearer insight into the matter.

It is a fact acknowledged by some physiologists, that the common use of milk induces a tendency to constipation, and I have known many cases in which long habit of its use has not counteracted that tendency. Many individuals in mature life have been greatly benefited in this respect by simply renouncing the use of milk, in which they had indulged from infancy, supposing it to be one of their most wholesome dietetic habits. If there be some whom it does not injure in this way, there is no certainty that it may not do so in some more obscure, but no less certain manner. In some cases it induces an accumulation, of fat, which, though often mistaken for a sign of health, is only a result of sluggish circulation. It is a frequently recognized result of taking milk that the partaker feels dull and stupid afterwards.

On the other hand, wonderful cures are related as resulting from the use of milk, but it does not require much effort to recall stories of cures far more wonderful, said to be performed by the most deadly poisons. I do not doubt but that most of the patients who are taking drugs would be improved by exchanging them for milk. It is also true, that in spite of the undesirable things about a milk diet, there are other eatables that are worse, and people might exchange them for milk with no small advantage. This is not proving, however, that there are not many other things far better than milk.

On the other hand, there are not a few diseases, like nasal catarrh, which it is difficult, if not impossible, to cure while continuing the use of milk.

All this, while taking it for granted that the milk used is pure and good. Under the present conditions, however, of our milk-producing animals, it is almost impossible to have good milk. I do not refer to swill milk, nor to adul-

terated milk, for those who produce their own milk do not fear these contingencies, and those who purchase always employ reliable dealers, who bring *them* the pure article. Usually they know, or think they do, where their dealer obtains his milk, and sometimes the latter has the name of the farm, or at least of the county, where his milk is produced, in large letters on the outside of his milk-wagon. Other wagons have "pure country milk" in the same conspicuous place, which is equally convincing evidence of its purity!

Those who produce their own milk, however, ought to know that the conditions of our milch cows are very unnatural. They are often shut up in close and ill-ventilated stables, or left exposed and unsheltered to the inclemency of the weather. They are often fed with slops and hot food. Conditions of disease ensue, as may often be seen by the conditions of the vitals in case of accidental death. Their milk is necessarily affected by the state of their health.

Indeed, it sometimes affects the milk most of all. For the quantities in which they produce milk are unnatural. They are stimulated to this by feeding and by frequent milking, and this again is increased by breeding with reference to this result. In a natural state, also, they would give milk but a few months, and it is well known that the character of the milk is greatly deteriorated by renewed pregnancy. Just here hinges the emphasis placed by physicians on obtaining milk from a new milch cow for feeding a young child.

This unnatural flow of milk constitutes a drain upon the system, and, as in other cases of drainage, the waste matters of the system have a tendency to pass off by this channel. A visitor to Borden's factory for condensing milk tells us that the odor arising from the fluid condensed from the vapor that passes off from the heated milk, is "by no means that of the balm of a thousand flowers. It is indescribably offensive." And yet the fluid usually passed off in vapor is its purest part.

Cream may not be any purer than the

other ingredients of the milk, but it is more easily digested. Many can eat cream and do tolerably well on it, who suffer from the use of milk. This is no doubt owing to the almost entire absence of the casein or curd. The greatest objection to the use of cream would be against its impurities. Butter is more concentrated and less digestible; in fact, is only better than other forms of animal fat, when we do not use it in a melted state, nor cooked into other food. Shortening with butter is little, if any, better than shortening with the fat of the same animal. Shortening with cream is a little less bad, but still not wholesome.

Cheese, which is almost pure casein, or curd, is very difficult of digestion. A small piece will "bind" some people for days, and we cannot believe that any one eats it with impunity, whatever he may fancy.

Milk is more indigestible after cooking than before—much more constipating. It is not unfrequently given as a medicine to correct looseness. Baked milk is worse than boiled milk. Yet this is one of the commonest ingredients in our puddings, biscuits, custards, pies, and other dishes, and people eat them without even seeming to think of danger. Indeed, custards and custard pies are considered light and delicate. I knew a sick man once—at least he was laid up with an injured foot—who gave himself a severe fit of indigestion by eating a single meal of custard and toast (two favorite invalid dishes), and his physician told him he ought to have known better—a comment rather difficult of appreciation, when we consider how few principles physicians generally give their patients to guide them.

Custard—let us see, that means baked eggs and baked milk, two things that are bad enough by themselves, and putting them together does not redeem them. In fact, all the dishes with milk baked or boiled in them, are more difficult of digestion than they would be without it. I know this makes a rout in the cookery—some of our country friends would hardly know how to cook

without it. Yet it is quite possible to do so, and make dishes very palatable too, as many know who have no cows to go to, and some others know who have made a study of making things taste good without it, as well as without other hurtful ingredients. I do not flatter myself that there is any one thing that can be used as a substitute—substitutes generally are unsatisfactory things—but changes can be made, in one way here, and in another there. For example, some people think they cannot eat hominy or “corn-grits” unless it is boiled in milk. The fact is that milk in this, as in many other cases, merely covers up an inexcusable ignorance of the proper way of cooking things. If this mush is made of the right consistency and cooked a sufficient length of time, it is more delicious than when made as most people make it with milk. We gave the recipe in the March number of *SCIENCE OF HEALTH* for this year. With facilities for steaming, it may be cooked three or four hours with still greater advantage.

Another familiar example is that of “gems” or batter biscuit. A great many people are making them now with milk, or with milk and water, because they think they cannot make them good with water alone. That is merely because they have not the wit to mix them and to cook them properly. But we have said so much on that subject that our regular readers must be posted, and our new readers who wish for the recipe for “Perfect Bread” will find it in the *HEALTH ALMANAC* for the present year, to which we beg leave to refer them and save repetition. If their wheat meal is defective, however, they cannot expect a good article, and the only true remedy is to promote the growth of better wheat by all proper means. There is great room for improvement in this direction. And this reminds me that milk, as well as other unwholesome ingredients, is often used to cover up defects in material for which the cook is not so much to blame, only that she, too, ought to agitate for a better article.

Puddings, where milk is so generally

used, may be very well replaced by those made with fruit, of which we have given a large variety of recipes in previous numbers of this magazine. Pudding sauces, too, may be made with fruit juices, and be very much superior, as well as in greater variety, than those made with milk. Some people who mean to be very hygienic, trim everything with milk sauce. We confess that this is much better than the drawn butter which others use so freely, though there may be some things which we have not yet learned to make palatable without it. The latter should be disused more than they are. We can make good our variety by the use of fruits, fruit juices, and the cultivation of skill and good sense in cooking; and if not, we can more than make the balance by cultivating a healthfulness of digestion, which is equal to hunger in saucing all our dishes. We can then well afford to dispense with those articles which require hurtful ingredients, or condiments or modes of cooking, to make them palatable, and we will appreciate our food with a relish that we never found while living upon unwholesome dishes.

A little care is needed in making such changes. They should, as a general rule, be gradual, especially where several persons sit at the same table, of whom some need proof that there is a better way, or persuasion to forego some of their favorite dishes. To them it is well to replace the milk puddings gradually with fruit puddings, as the season advances, and make other changes in a similar way. Individuals who are thoroughly convinced and persuaded, often gain time and health by breaking off at once and eat only the plainest food; but it requires no small amount of decision to do this, and generally, besides, the whip of some disease induced by their previous bad habits.

SEASONABLE RECIPES.

Strawberry Dessert.—Raise your own strawberries and have them sweet and fine-flavored, whether you have them large and showy or not. Almost any strawberry will look well if it tastes well. Mulch them with straw or dried leaves, so

that they will not need washing. Pick some clean leaves and place a few on dessert plates, so that they show a little beyond the edge. Pick the ripe strawberries, as far as possible, on the stems, certainly in the calyx, and pile them on the centre of each plate over the leaves, and serve to each guest. Eat them by picking them up with the fingers, hulling them as you eat.

Strawberry Sauce.—Never wash strawberries if it can be avoided. If it must be done, do it before they are hulled. Use a large bowlful of water, put in a few berries at a time, stir them lightly with the hands until clean, skim them out and hull them at once, putting them into the saucers in which they are to be served. Sprinkle sugar over them if needed, and send to the table without further handling, or leave them to be sugared by the eater. Every time they are handled takes something from their freshness, but if it is preferable for other reasons to place them in one large dish on the table, put them at once into the dish as you take them from the water and hull them, sprinkling on the necessary sugar as you proceed, so that they will need no stirring afterward. They need no draining. The little water that clings to them will melt the sugar, and with the juice of the fruit will make an exquisite dressing.

Strawberry-pudding Sauce.—Take small fruit or bruised fruit, or any that is left from the table, or any that will not keep well until you wish to use it, place in a closely-covered porcelain-lined saucepan on the stove, with barely water enough to cover the fruit, and stew gently for three minutes after it begins to boil. Then strain through a cloth or through a hair-sieve, sweeten the juice to the taste, return to the fire and scald the sugar in, and, if desired, thicken with a very little corn starch or arrowroot, not more than one teaspoonful to a quart of the juice. If this juice makes the sauce stronger than you need, reduce it with water. Use it for boiled rice, corn starch, boiled fruit puddings, or any other pudding with which it harmonizes.

Strawberry Lily.—Boil rice according to recipe in *SCIENCE OF HEALTH* for last February, spread it one-third of an inch thick on a dessert plate, and cover it with sweet, fine-flavored strawberries, leaving a narrow margin of rice; then pour over it sweetened strawberry sauce, made according to the last recipe, omitting the thickening. Let the juice show a little beyond the margin of rice. Sprinkle with sugar and serve cold.

Orange Lily.—Spread boiled rice one-third of an inch thick on a dessert plate, cover it with small pieces of sweet orange, pour over it a sauce made by simply sweetening the expressed juice of the orange (and flavored with pine-apple if at hand). Sprinkle with sugar and serve cold for dessert.

Canning Strawberries.—Strawberries in-

tended for cooking or canning, should be large, firm, and not too delicate. They should be closely covered, and cooked very gently for not over five minutes, and then be put up hot like other fruit. Bruised fruit, and that which will not keep until wanted for use, may be scalded and put into cans for future use in making pudding sauces. Put in, fruit and all, leaving the straining and sweetening until it is taken out. This will save one heating, as it will need heating after it is opened for use in any case. It can then be sweetened to the taste and thickened if desired. The flavor of strawberries is too evanescent to allow of cooking them in puddings and dumplings and other dishes of that sort.

A Little Advice to Farmers.

HELP your wives in every way you can, trivial though it may seem to you. For instance: keep an extra pair of shoes or slippers in the hall or entry, and always remember to change your dirty boots before entering her clean rooms. Then you may be sure of a smile of welcome, as no dirt will be left after you for her to clean up. In the evening comb your hair as carefully as ever you did in your courting days, put on a clean coat or dressing-gown, and when you take your paper to read, do not read to yourself and leave her to lonesome thoughts while sewing or mending, but remember that she, too, has been working hard all day, and is still working. Read to her whatever interests you, so that her interests and opinions may grow with yours, and that she may comprehend something besides love stories, of which too many have read more than they should. You will both be happier, and being a farmer's or a mechanic's wife will not be such a dreadful tiresome and lonely life as many girls have every reason now to think it is.

GERANIUMS, if watered with liquid manure once or twice a week during the Summer, will blossom profusely, and if the bed is shaded some during the hottest part of the day, all the better. In order to produce fine clusters of flowers, pinch off the stalk above the buds. If you wish cuttings, take them in July from your best plants, and place them in pots of compost loam and sand, having one or two inches of the first on top. Insert the cutting firmly, and keep the soil well moistened until it is rooted. Remove to a larger pot when two or three leaves are developed. The compost should be now one-third rotted cow manure, and black loam and sand. By November you will have fine plants for the house.

ANNUALS and delicate bedding-out plants should be watered every night after sunset. Water, if exposed to the sun during the day, will be of about the right temperature. Night is the best and only time plants should be watered, and this should not be neglected if you wish fine and luxuriant plants.



MONTHLY.
\$2.00 year.

NEW YORK, JUNE, 1874.

[SINGLE No
20 cents.]

TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

END OF VOLUME FOURTH.

THE present number completes the second year and fourth volume of the *SCIENCE OF HEALTH*. Although we have not fully realized our hopes in its circulation, we have sufficient encouragement to go on. We have not yet attained a circulation of one hundred thousand, but we have distanced all competitors. No doubt the financial panic of last fall rendered our subscription list less by many thousands than it would otherwise have been. We shall, however, make extra exertions to secure those thousands for the next volume.

The need of an independent Health Journal, to teach the people how to maintain or recover health without poisonous drugs, was never more apparent than now, when, of the six thousand periodicals circulated in the United States, nearly all are in the interests of the drug system, in the way of advertising media. The exceptions are hardly a single dozen. And when one of the hundreds of extensively-advertising quacks who are deluging the land with swindling nostrums, can pay so respectable and influential a paper as the *Independent* five hundred dollars for a single insertion, no further evidence is needed to prove that the delusion on the part of an otherwise intelligent community is wide and deep. There are hundreds of such enterprising empirics in the country, whose combined receipts can hardly be less than one hun-

dred millions of dollars annually. And this sum is worse than wasted. These nostrums can only deceive and mislead the people. The exercise of a little common sense, guided by a little knowledge of the intrinsic nature of disease, and of the remedial resources of the vital organism, would insure the people better health without this immense expenditure.

But, while we regard the advertising nostrum-mongers, with few exceptions, as intentional swindlers, we are not unmindful that they are only commending, in an irregular way, what the medical profession prescribes in the regular manner. Said the late Sir Sidney Smith, "The chief cause of the quackery outside of the medical profession, is the real quackery in the profession." Sir Sidney was right, but with a qualification. We do not accuse the medical profession of quackery, or of ignorance. The fault is in its principles, not its men. The system is false. It is founded in error. Its fundamental premises are wrong. The whole plan of poisoning persons because they are sick is a mistake. It has cost the world millions of lives, and hundreds of millions of ruined constitutions. It is absurd in science and contrary to nature; hence admits of no reform, no improvement. It can only be mitigated or revolutionized. No learning, experience, honesty, or good intentions on the part of its practitioners, can render it success-

ful. Being based on a false theory of disease and a false doctrine of remedies, it is and must of necessity be productive of more harm than good.

When the people can be made fully to understand the truth of the Hygienic system, they will abandon drug medication in every form and shape at once and forever. To this end we intend to make a more vigorous effort during the ensuing year than ever before. And we hope and trust that our friends will second our endeavors by extending our subscription list in all possible directions, and to the greatest numbers possible. We *must* have a hundred thousand subscribers and half a million of readers to celebrate the Centennial with. If each subscriber will send us another, and every agent will double his club this year and next, it will be done.

DEATH IN THE BARN-YARD.

ALL have heard of death in the pot; death in the bottle; death in the cellar; death in the well; death in our cups; death on a white horse; indeed, of death all around. There seems to be no escape from the man with the scythe, who finally

"Cuts down all,
Both great and small."

But man is full of devices to thwart him, or keep him as far off as possible. Many systems of medicine have been invented; to no purpose, it would appear, from the fact that the more of their so-called remedies we swallow, the worse we are off. Still, men keep on experimenting, now with poisonous pills, plasters, blisters, then with bourbon, bitters, or bugs, and so on. But what's the use? Why not study cause and effect? Why not learn what are the causes of disease, and remove or avoid them? If having a "high"—drinking wine and going without sleep—gives one a headache, why not decline the "high"? If late and hearty suppers induce dyspepsia, why not forego

the hearty supper, and stay the stomach with a little plain and simple food? It is said that many dig their graves with their teeth. This need not be. Why not let God's will be done, by eating to live, instead, as now, of living to eat? If smoking gives one the "heartburn," or makes one nervous, why smoke? Do strong tea and coffee keep one from sleeping soundly, and render one peevish, irritable, and fidgety, then why not give up strong tea and coffee?

A "BAD COLD."

"Oh, I have such a cold, and have no idea how I took it!" "What have you been eating?" "Oh, not much! a little hot soup, a plate of fish, a few pickled oysters, a plate of boned turkey, a bit of ham with a couple of eggs, a bit of broiled fowl with a few vegetables, a hot biscuit, a piece of mince-pie, a custard, and a few canned peaches, a plate of prunes and orange, a dish of ice-cream, and a cup of coffee. I think it must have been the ice-cream that did the business for me, for I felt stuffed up from that moment, and this cold has been coming on ever since."

Bad colds come of over-eating more frequently than from any other cause. But what about

"DEATH IN THE BARN-YARD?"

This: Careless and neglectful farmers permit the accumulations of animal excrement, decaying straw, chaff, and hay to lie and rot all summer in close proximity to the dwelling, whence bad odors are wafted into every room, and the inmates breathe the foul and pestilential odors, night and day, all through the year. In hot weather, windows must be kept shut to keep out these sickening and deathly barn-yard smells. Finally, one of the members has an attack of typhus fever. The doctor is sent for, and prescribes what?—a lot of poisonous drugs! The patient dies, and another.

one sickens in the same way and goes through the same experiences, with the same results; and then another, and that stricken family is left without a mother, a daughter, or the younger children that made it happy. Those away at school, or at work away from the house, escaped with their lives. Here is a case of the most palpable cause and effect, and yet it was not seen till death had thinned the ranks of that family.

A CASE IN POINT.

In a pleasant town in Massachusetts there was a young ladies' seminary. The reputation of the place and the fame of the teachers drew a large number of blooming girls there, to be educated and trained to the accomplishments and duties of life. High hopes animated all—parents, principals, teachers, and pupils. But ere long pale death made his appearance and claimed a victim. Then another and another, until a panic raged in the institution at beautiful "Maple-wood," and all who could do so hastened to their homes; some to die in their own family circle; others, with more constitution, to recover slowly and thank God for their escape. But what was the cause of this epidemic? Was it the water? No. Was it the food? No. Overstudy? No. Well, was it in a malarious region of country? No; for it was in the charming town of Litchfield, an educational center, from which have come some of the brightest intellectual lights of the age. It is a healthy place. Then what was the cause of this epidemic at the young ladies' seminary? We answer, it was "*a filthy barn-yard!*"

The institute stood near by and a little east of an uncleaned barn-yard, whence the sickening odors were wafted through the house, and those young creatures breathed the death-giving fumes, all unconscious of its fatal effects, till one after another fell before the destroyer. *That* school failed. Then the wise ones began

to cast about to ascertain the cause of their misfortune. Having cleaned out the stinking barn-yard, there was no more trouble.

YELLOW FEVER.

Last summer, when the weather was hot, cattle dealers were transporting a cargo from Texas north, when the boat struck a snag in the Red river and sank just above Shreveport, in Louisiana. The drowned cattle were hauled on shore, their hides taken off, and their carcasses left to decay on the bank or tumbled into the river. The foul stench which supervened, soon rendered life in Shreveport intolerable. Air and water were polluted. The festering stench filled the air for miles around. A few weeks later the telegraph announced the scourge of yellow fever to be raging in that town. It soon spread to other places, where the sanitary, or rather where the want of sanitary conditions gave the disease a foothold, and it peeled several of the Southern cities, among others Nashville and Memphis, in Tennessee.

In the above it will be seen that we trace cause and effect in all these cases. But we have cited only three or four conspicuous cases, with which the public is familiar. But we do this to call attention to every man's barn-yard, pig-pen, privy, door-yard, hen-house, compost-heap, or any other dead and decaying rubbish which fills the air with impurities. Neither doctors nor drugs can counteract the disease-generating effects of these things.

CLEANLINESS IS NEXT TO GODLINESS.

It is not enough that we bathe and keep the person clean and free from bad odors: we must keep all our surroundings clean, so that the air we breathe, the water we drink, and the food we eat, shall all be PURE. Neat and tidy farmers will clean out their stables and their barn-yards, pig-pens, and door-yards;

clean out their cellars and their wells, cisterns and springs, and make all sweet, clean, and healthful. This is the way to preserve health, prolong life, and save doctors' bills. This is **HYGIENE**.

CENTENNIAL HYGIENIC CONVENTION.

Now that all the world and the rest of mankind have concluded to meet in Philadelphia in a "grand centennial," a zealous Health Reformer proposes a convention of Hygienists on that occasion. We second the motion, and put the question to our readers, should such a convention be held? There are, scattered over the United States and throughout the world, Health Reformers enough, could they all be assembled at or near one city, to make such a display of members as would astonish the seven sleepers. They have never yet undertaken to do much in the sensational line, but we think the time and occasion will be presented in July, 1876, for a demonstration that will be for the healing of the nations.

There are many important questions just now interesting the public mind, which are incidentally but very superficially discussed by the secular and religious newspapers, as well as by the medical and scientific journals, and which ought to be settled on their true and philosophical basis. Among these are, Popular Medical Education, Sex in Education, Women Physicians, Raising Children, Pre-natal Influences, Hygienic Agriculture, Dress Reform, The Temperance Problem, The Tobacco Nuisance, The Social Evil, and the whole range of Hygienic Agencies—Diet, Bathing, Clothing, Exercise and Rest, Sleep, Ventilation, Temperature, Electricity and Magnetism—in the applications to their preservation of health and the treatment of disease. Since the advent of "Hydropathy," more than thirty years ago, these subjects have been profoundly studied by Health

Reformers, who could now produce essays on many, if not all of them, of immense value to the human race.

We suggest that such Hygienists as will prepare papers for the convention, send us their names and the titles of their subjects. We will publish the more important of them in book form, and thus give them wide circulation and a permanent existence. We will also commence the subjects, selected from time to time, so that all who propose to contribute to the intellectual feast may know what others are doing.

Of course, in due time a committee of arrangements should be appointed, and funds raised to defray expenses. But first, let us hear from the friends of the project. Who will sustain it? What will they do about it? Let us have the "voices of the people," and the "talk with correspondents," from all parts of the land, and of other lands, that it may be "international" in the broadest sense, and a platform adopted that shall embrace the truth, the whole truth, and nothing but the truth.

WHERE WILL YOU SUMMER?

MOST of us will stay at home. We are engaged in duties which tie us up. "We cannot leave the children." "We cannot leave our work." "Besides, one is about as well off in one place as in another. If we go to the country, we leave our comforts behind us—our beds, bureaus, bathrooms, and our household effects. Then it's so much trouble to get ready. There are dresses to make, trunks to mend and to pack, and one tires to think of the worry and hurry of getting ready." There is force in all these objections. Still, that is but one side of the question; most of us run in ruts. We follow a sort of routine life, which warps and renders us one-sided, or makes us narrow-minded machines. It is a good thing to break away from social trammels, throw off the

harness, and send the horse to pasture for a while. Old horses renew their youth and become something like colts again, by having a season of rest and a free feed on fresh dewy green grass. Men and women, worn down with family cares and business or professional duties, need seasons of rest, and having it, they secure new leases of life, and come home invigorated for another long, strong pull at the work of their choice.

A change of air, of scenery, surroundings, associations, and so forth, together with cessation from accustomed cares, leaves body and brain in a more favorable condition for recuperation.

If one can go from home but a week or two, let him do that. If for a month, or three months, so much the better. Even now and then a day in the country will prove useful to the city denizen. While a summer trip to the Rocky Mountains, or up the great lakes, or a coastway voyage to Nova Scotia, or even to Newfoundland, would be delightful, and better, in some respects, than to Europe. You may see whales and plenty of smaller fish in the Gulf of St. Lawrence; and it is simply romantic to roll, pitch and tumble about in a fishing smack off the coast of Labrador during the summer months. Here may be met broken-down preachers, teachers, merchants, artisans, literati, who, remembering the primitive occupation of the earlier Christians, seek a restoration of animal energy, which they cannot find in pills, powders, biters, cod-liver oil, or other drug stuffs. Off at sea they get pure air, and just enough exercise to keep all parts in constant motion, in keeping with the waves of old ocean.

Copious breathing of fresh air expands the lungs, improves circulation, digestion, and invigorates all the functions of body and brain. Then why not go fishing?

If one prefers a course of hygienic treat-

ment, with a view to a sort of physical recreation, something equivalent to placing a ship in dry dock for overhauling and repairs, he may go to one of the excellent hygienic homes, where may be found all the appliances for renovating dilapidated constitutions, and taking the mercury out of their bones, and the tobacco and other poisons out of their systems. Read Bulwer's confessions of a water-cure patient, published in tract form, then go and do likewise.

Or if you prefer the sea-side—salt-water bathing is not so healthful as *soft*-water bathing—you can find it all along for more than two thousand miles of sea-coast—from Nova Scotia to the Gulf of Mexico—where one may “play the fish,” to his heart's content.

But we may find recreation, health, and enjoyment where we will. Mountains, valleys, plains, lakes, rivers, and seas are open to us, and if we eat, drink, exercise, bathe, sleep, clothe, and keep ourselves in right relations to ourselves, our fellow-men, and to our God, we may live more or less healthfully almost anywhere. Where will you summer?

INCREASE OF INTOXICATION.

COMMISSIONER MEYER STERN has issued a report on the increase of intoxication, which shows to what an alarming extent this degrading vice has attained in New York. There is one remarkable fact contained in the report, that the women who are classed as habitual drunkards, and have been committed over six times, outnumber the men by sixteen to one. The report points out the defects of the present system of treating habitual drunkards, and suggests that “casuals” should be let off with a small fine, but that “habituals” should be sent to a reformatory for any period up to two years, according to the nature of the case, and there weaned from the habit of intemperance. Annexed to the report is the following return of Mr. Keen, Warden of the Workhouse:

Number of males committed to the Workhouse on Blackwell's Island more than five times for intoxication January 1, 1870, to January 1, 1874: 108, 6 times before; 28, 7 times before; 162, 8 times before; 5, 9 times before; 181, 10 times before; 16, 12 times before; 21, 15 times before; 27, 20 times before; 4, 25 times before; 1, 30 times before; 2, 50 times before; 1, 40 times before; 1,

70 times before; 1, 75 times before; 1, 80 times before; 1, 100 times before. Total—560.

Number of females committed to the Work-house, Blackwell's Island, six times and upward for intoxication, from January 1, 1870, to January 1, 1874: 8702, 6 times; 602, 7 times; 1437, 8 times; 172, 9 times; 1157, 10 times; 31, 11 times; 749, 12 times; 13, 13 times; 46, 14 times; 37, 15 times; 23, 16 times; 7, 17 times; 33, 18 times; 5, 19 times; 762, 20 times; 1, 21 times; 7, 22 times; 1, 23 times; 3, 24 times; 10, 25 times; 5, 26 times; 1, 28 times; 1, 29 times; 36, 30 times; 91, 40 times; 1, 41 times; 1, 48 times; 1, 49 times; 14, 50 times; 1, 53 times; 19, 60 times; 1, 70 times; 1, 80 times; 1, 86 times; 29, 100 times. Total—9006.

Who's to blame? The poor weak women, whom the doctors have dosed with beer, porter, wine, bourbon, and bitters, are more to be pitied than blamed. But *why* is a fallen woman worse than a fallen man? When it is realized that strong

drink not only tempts the weak, but also the strong in body and in mind, and that it dethrones the strongest, brightest, and the best, as well as the weakest, there is good reason for its total disuse.

We hold our doctors largely responsible for drunkenness in both men and in women, because they prescribe alcohol to nursing mothers, and thereby beget in them and in their children an appetite for the poisonous stuff which sends so many of them to hell. Aye, *they* are largely to blame for drunkenness, insanity, imbecility, pauperism, and death. God pity the poor drunkard, and save us from the penalty of our sinning.

HYGIENIC HOMES IN AMERICA.

Responses.—In a late No. of SCIENCE OF HEALTH, under the title of "INFORMATION WANTED," we asked for brief and exact descriptions concerning certain matters, to wit:

"Judging from numerous letters of inquiry received at this office, the inference would be, that the conductors of the SCIENCE OF HEALTH ought to know everything—about Hygeian Homes; their location, management, how to reach them, terms for treatment, and so forth. To save time, trouble, and expense for stationery and postage to our readers and ourselves, we propose to publish, in an early number of the SCIENCE OF HEALTH, a succinct statement or description of each existing establishment, for the benefit of "whom it may concern," providing such information be furnished us at an early day. The description should be brief, occupying not more than seventy-five words, or say ten printed lines of space."

An example was given, and the following have been received in response. If any "Homes" have been omitted from the list, it is not *our* fault—we desired and sought to reach and include all:

This we proposed to print in the interest of the public, irrespective of any advertising and to save ourselves the trouble of writing letters, on business, in which others are much more concerned than ourselves.

In some of these institutions, two meals a day are furnished, and three meals in others.

Meat is furnished in some, while others are vegetarian. Particulars, not given here, may be learned by correspondence.

Trall's Hygeian Home and Hygeio-

THERAPEUTIC COLLEGE, at Florence Heights, N. J., beautifully situated on the Delaware, between Bordentown and Burlington, has accommodations for 200 persons. Among its curative appliances are gymnasia, Swedish movements, vibrators, the health-lift, electro-therapy, etc. In the college department, ladies and gentlemen are admitted on equal terms. Hygienic family school for children. Students and patients may have employment to reduce expenses. The poor liberally dealt with. For circulars, address R. T. Trall, M.D.

Healds' Hygeian Home, Wilmington,

Delaware. One hour from Philadelphia, four from New York, and four-and-a-half from Washington, without change of cars. Direct rail from West. Attractive hygienic diet; improved appliances for water and sun baths, movements, health-lift, heating and ventilation. No charge for heat or gas. Health lectures. Terms, \$10 to \$15 per week, according to rooms. Twenty patients. Address, with stamp, Fusey Heald, M.D., or Mary H. Heald, M.D.

The Wesley Water-Cure, situated very near the well-known Delaware Water-Gap, on the line of the Delaware, Lackawanna and Western railroad, is a new institution, built and furnished expressly for the comfort and convenience of invalids. Accommodates forty guests. Every suitable appliance for treatment. Farm connected with Cure. Table supplied with an abundance of wholesome food. Meat once a day. Healthful climate. Fine water. Experienced physician. Terms, \$8.50 to \$13.50 per week, according to room. Address, with stamp for circular, F. Wilson Hurd, M.D., Delaware Water-Gap, Monroe county, Pennsylvania.

The Mountain Home, Wernersville, Berks county, Pennsylvania, Robert Walter, M.D., and Mrs. E. C. L. Walter, M.D., proprietors and managing physicians. Situated on Lebanon Valley Railroad, 8 miles from the city of Reading, 62 from Philadelphia, 136 from New York. On Cushion Mountain, 1,000 feet above tide-water at Philadelphia. Scenery unsurpassed. Water from living springs. Can accommodate 100 patients. Has a telegraph office connected with it; also, an excellent livery. The treatment consists of food, prepared by first-class hygienic cooks, not exclusively vegetarian; of water treatment, in the most approved forms; of Swedish movements, thoroughly and persistently applied; of sun baths, magnetic and electrical treatment, social influences, etc. Terms, \$7, \$8, \$9, \$10, up to \$12 and even \$20 a week, according to room occupied. Send stamp for circular to Robert Walter, M.D.

Riverside Water-Cure, Hamilton, Illinois, situated midway between St. Louis and Chicago; opposite Keokuk, Iowa. Views fifteen miles Mississippi River, is at the terminus of six railways, and has two new buildings, accommodating seventy-five guests. Receives either patients or boarders, summer or winter. Uses the improved hygienic appliances, discarding all drugs. Terms, \$8 to \$15 per week. Photo. and circular, ten cents. Address, with stamp, Drs. Ringland and Hunt, Hamilton, Hancock county, Illinois.

Montreal Health Institute is situated near the Montreal mountain, and within ten minutes' walk of the railway station. Open summer and winter. Have accommodation for about twenty resident patients. Special attention paid to the treatment of chronic diseases, on hygienic principles. Terms, for board and treatment, from \$10 to \$25 per week, according to room, attendance, etc. Have a large and well-constructed Turkish bath, also a complete movement-cure department, worked by steam power; also, lifting machines, sun baths, etc. Address D. B. A. Macbean, M.D., 140 St. Monique street, near Crystal Palace, Montreal, Canada.

Invalids' Home, 211 Center street, Stockton, California, on the overland railroad. Mrs. P. C. Tabor, M.D., a graduate of the class of '70. The usual hygienic appliances. Purest soft artesian water. Sun baths, lift-cure, sand baths, etc. Delicious fruits. Two meals a day. June, July and August usually spent with patients at the Springs or Big-Trees. Terms, \$10 to \$15 per week.

Hygienic Hotel, 13 and 15 Laight street, New York city, combines all the advantages of a good hotel and home with those of a first-class health institution. Its appliances for the treatment of invalids include the Swedish movement-cure. Dr. Wood's passive exercises, health-lift, Turkish baths, electric baths, water-cure, magnetism, carefully-selected and well-cooked food. Terms, \$2 to \$3 per day, \$7 to \$15 per week; including full treatment, \$15 to \$25. For circulars, address Wood & Holbrook, proprietors.

Dr. E. P. Miller's Home of Health, 37, 39 and 41 West 26th street, New York city, near Fifth avenue, Broadway and Madison Park. The house comprises several departments, viz.:

Water-cure, Turkish baths, electric baths, movement cure, rubbing cure, lifting cure, and boarding. One hundred rooms, well lighted and ventilated. Open all the year. Terms, \$10 to \$35 per week, according to room occupied. Treatment, \$10 per week extra. Address, for circular, Dr. E. P. Miller, 39 and 41 West 26th st., New York.

Dr. Schieferdecker's Water-Cure, 313 West 22d street, New York, has attained its results by the simple, individually-adapted use of air, water, diet and exercise, with the view of raising and assisting the self-preservative and self-restorative powers of the organism. Charges per week, from \$15 to \$50.

Elmira Water-Cure, at Elmira, Chemung county, New York; junction of the Erie, Northern Central and Lehigh Valley railroads. Established in 1852 by Dr. and Mrs. Gleason. Open for both sexes. Has the most-approved hot-air, vapor and electrical baths, besides all other means of water treatment; also, Swedish movements and gymnastics. Diet liberal. House open all the year round. Terms, from \$8 to \$22.50 per week. Send stamp for circular to Drs. Gleason & Wales, Elmira, New York.

Brighton Water-Cure, located at Brighton, Macoupin county, Illinois, at the crossing of Chicago and Alton, and Rockford, Rock Island and St. Louis railroads, thirty-five miles north of St. Louis. House new, rooms large and well ventilated. Hot-air bath, and other bathing appliances, in general use. Electricity, Swedish movements, Wood's vibrator, buggy riding, generous and wholesome diet. Terms, \$7 to \$15 per week, according to choice of room and attendance required. For particulars, address McCall & Black, proprietors, box 89.

Kansas Hygienic and Remedial Institute, Manhattan, Kansas. Dr. Vail, for eighteen years director of the Granite-State Health Institute at Hill, N. H., is now located in Manhattan, Kansas, where patients will find every facility for the cure of all kinds of chronic diseases. Send for circular to W. T. Vail, M.D.

Spring Valley Hygeian Home, Hannibal, Missouri. One mile from the city. Facilities for treatment ample, including Swedish movement apparatus, etc. The best hygienic dietary. Accommodations for a small number of patients. Terms, \$12.50 to \$15 per week. Z. F. Glass, M.D., physician and proprietor.

Medical, Surgical and Hygienic Institution, Binghamton, Broome county, N. Y. This institution, so long and favorably known, continues in successful operation. It is beautifully situated in one of the most healthful and thriving inland cities in the United States. Terms, from \$10 to \$20 per week. For further particulars, address O. V. Thayer, M.D.

Saratoga Institution, Dr. Bedortha receives patients and boarders at his old place, on Broadway, Saratoga Springs, N. Y. The arrangements are such as to make it inviting and comfortable. Address N. Bedortha, M.D., Saratoga Springs, N. Y.

Oak Grove Sanitarium. This is a home for invalids, pleasantly located at Kenosha, Wis., on the Chicago and Milwaukee Railroad, midway between these two cities. It is under the efficient care of Prof. H. P. Gatchell and Mrs. A. M. Gatchell, M.D., who have had twenty years' experience in hygienic treatment of chronic diseases. Reactionary health-lift, vapor, electrical and other baths, for the successful treatment of disease, are brought into use. An artesian well furnishes a constant supply of pure water. Terms, \$10 to \$12 per week. For particulars, address H. P. Gatchell, Jr., Kenosha, Wisconsin.

The Shenandoah Hygienic Institute, situated at Mount Crawford, in the delightful Shenandoah Valley, on the Baltimore and Ohio Railroad, eight miles from Harrisonburg and seventeen miles from Staunton. Rooms are pleasant, spacious and well ventilated. Send stamp for circular to A. M. Thomas, M.D., Mount Crawford, Rockingham county, Virginia.

Indianapolis. Mrs. R. Swain, M.D., practicing physician, 90 N. Delaware street, Indianapolis, Ind. Office open at all hours, and patients treated by the most approved plan: movements, electricity, and a prescription for baths, diet and exercise. Persons not living in the city can be accommodated near by. Special attention in training persons how to live so as to keep well.

Cleveland Water-Cure. Notwithstanding it is the oldest institution of the kind in America, yet it is fully up to the times, in diet, all the varied hot and cold baths, including galvanic and Turkish, all the latest valuable additions in the application of machinery to movements, lifters, etc. Terms, from \$12 to \$20 per week. A speciality is made of the treatment of diseases of women. T. T. Seelye, M.D., proprietor, Cleveland, Ohio.

Lebanon, Ind., Health Institute is pleasantly located in a thriving town. This Institute has been recently established. The physician has had many years experience. Furnished with the usual hygienic appliances. No drugs used. The principles taught in the SCIENCE OF HEALTH put in thorough practice. For circulars address L. H. Kersey, proprietor; or O. F. Kennedy, physician.

Dr. Harback's Hygienic Institute and MOVEMENT CURE, 621 Cottage Grove Avenue, Chicago, treats all chronic diseases with the Swedish Movements, by hand and machinery, in connection with prescription for home treatment, with water and diet.

Western Health Institution, and Galesburg HYGIENIC INFIRMERY, A. G. Humphrey, M.D., physician and proprietor, Miss S. E. Putnam, assistant. Pleasantly located at Galesburg, Ill., with every facility for the Hygienic treatment of disease. Invalids have the comforts of home, medical treatment, nursing and board, at about the same expense as would secure medical advice once a day at their homes. Terms are \$8 to \$12 per week, according to the room and the treatment. For circular, address A. G. Humphrey, M.D.

Water Cure and Summer Resort, Bethlehem, Pa., Andrew Hardie, M.D., physician and proprietor; Mrs. Margaret Hardie, M.D., physician. This institution is pleasantly situated among the mountains, on the banks of the Lehigh river, and near the Lehigh University. It may be reached from New York by the New Jersey Central R.R., from Philadelphia by the North Penn. R. R., from Reading by the East Penn. R. R. Terms for board and treatment from \$8 to \$12 per week, according to room and attention required. The usual Hygienic appliances are provided, including baths, Swedish movements, etc. Address for circular, Andrew Hardie, M.D.

Establishments located at the following-named places have not reported. There are, doubtless, others which will report later in the season.

Clifton Springs.....	New York.
Danville.....	New York.
Watkins Glen.....	New York.
London.....	Pennsylvania.
Columbus.....	Ohio.
Mansfield.....	Ohio.
Concord.....	Vermont.
Battle Creek.....	Michigan.
Kalamazoo.....	Michigan.
Lafayette.....	Indiana.
Springfield.....	Missouri.
Denver.....	Colorado.
San Francisco.....	California.
Lake Tahoe.....	California.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

RELIGIOUS NEWSPAPERS ADVERTISING QUACK MEDICINES.—"It is aggravating," a correspondent says, "to take up a religious paper—a family paper—and read in it a tissue of lies from vendors of concoctions said to be medicinal. Can you not do something to induce our publishers to refrain from encouraging this great wrong?"

Yes; we are doing all we can to educate the people to a standard above a blind faith in such things. Papers—religious, as well as others—are published to make money. So long as subscribers

to those papers do not object, publishers will continue to advertise quacks, lotteries, gift swindles, abortionist, and other leaser evils. If subscribers would write their publishers what they think of these things, it might have some effect toward abating a nuisance, and putting a stop to gigantic frauds practised on poor, sick, and dying persons, who pay their last dollar in the vain hope of finding a remedy in the worthless trash and slops peddled out by graceless scamps, and advertised by pious parsons in religious newspapers. Here is

one of the "Ads." copied from a religious paper:

"One of the most notable properties of Dr. — Elixir of Phosphates and Calisaya, is its sustaining power during active mental and physical exception. Business men, and all classes engaged in any occupation requiring great application and consequent fatigue, will find this remedy invaluable as it will enable them to accomplish their work with comparative ease. Phosphate of Lime is an active agent of nutrition, constituting more than fifty per cent. of the system; Phosphorus, a powerful Nerve Tonic; Phosphate of Iron, a blood-maker, and Calisaya, an agreeable supporting Tonic. — Sold by —."

A Canadian subscriber asks if the above is what it represents itself to be. We reply it is arrant quackery, and another mode of poisoning, and making drunkards. Better let Dr. —'s Elixir alone.

SYLVESTER GRAHAM'S PORTRAIT.—D. S. "Please tell me, through the SCIENCE OF HEALTH, if you know where I can get a photograph of *Sylvester Graham* suitable for framing."

We know of no portrait or engraving suitable for framing.

THE "LAW OF CURE." M. F. H. "I have asked several practising Homœopathic physicians of this city, to explain *how* and *why* a diseased person can be restored to health, by administering medicines which will produce the symptoms of his disease in a *healthy* person, and they either *cannot* or *will not* do so. Please explain, if you can, "how" and "why" a diseased person *cannot* be restored to health in this way."

The standard authors of the drug system do not pretend to "restore diseased persons to health." They only profess to cure their diseases, and the whole explanation is in Professor Palae's "Institutes of Medicine" in the following words: "We do but cure one disease by producing another."

SALT RHEUM.—J. W. "In what way should we treat Salt Rheum? My wife has been troubled with this for many years.

Preserving an even temperature, cleanliness and a simple diet are all that is required. Avoid all condiments and irritating substances.

CHILLS.—W. H. G.—"While in California, two or three years ago, I had a pretty severe time with the chills for about six months. Since then I have chilly spells, also a light cough, and occasionally a headache, but have a good, fair appetite. What can I do to complete a cure?"

Take a tepid ablution daily; adopt a fruit and farinaceous dietary, and drink only pure soft water.

SORE THROAT.—"What is your method for treating diseases in the nose and throat—it is called scrofula."

Our work on "Digestion and Dyspepsia" will give you the needful information.

WHEN TO DRINK.—BLOOD.—"When is the best time to drink liquids, at meals, or an hour after meals? 2. What should you do when your blood is out of order?"

1. Drink, if thirsty, an hour after eating. 2. We should live on such Hygienic food as would purify the blood. Pure air, pure water, and proper food, will keep the blood all right.

FOOD, AND SO FORTH.—G. H. C.—

"What kind of food should a nursing mother eat to insure her health and also that of the child? 2. Will cutting wisdom teeth cause any affections of the throat, or pain in the breasts or lungs? 3. How should a child be treated cutting teeth, five months old, inclined to be feverish and fretful? We have derived a great deal of benefit from your SCIENCE OF HEALTH already, in the way of living 'Hygienic.' My wife and I think it one of the best books for the benefit of the public, ever published. We will try and send you a few subscribers soon."

1. A mother should always eat wholesome food, whether nursing her child or not. No particular articles are required because she is nursing. The only difference should be in quantity. 2. No. 3. A warm bath.

INORDINATE LAUGHTER.—W. L.—

"Please inform me why hearty and continued laughter should produce pain at the back part of my head, behind the ears; it is something that I cannot see any explanation for."

You strain the ligaments of the lower jaw, the joint of which is just back of the ears.

"WHAT SHALL I FEED THE BABY?—

My babe is nine months old, and eats fresh cows' milk twice a day. It is well and hearty. Shall I feed it oat-meal with milk, or what do you advise?"

Oat-meal, wheat-meal, and corn-meal, are good; so are baked apples and fresh, ripe berries.

"SOME parties in making bread, in using hop yeast, add a lump of alum as large as a walnut, in five loaves, to sweeten and make it more soft and spongy."

Such bread is not wholesome.

WEAK BACK. M. S. N.—The case you describe is not simple weakness of the muscles, for which carrying weights in the hands or on the head, is recommended. The main difficulty is uterine displacement, and requires the special treatment of a competent Hygienic physician.

Other questions must wait. It is quite natural for correspondents to desire prompt answers to their questions, but they must remember types will not stretch, and that we go to press a month or more in advance of our date.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

Soda—A Cause of Disease.

"*Mountains of Virginia.*—EDITOR OF SCIENCE OF HEALTH.—DEAR SIR,—One Dr. Henry R—, a retired physician of this State, who has had a professional experience of more than forty years, and who has won considerable celebrity by the success attending his practice, pronounces common soda, now so extensively used for culinary purposes, one of the most serious causes of disease and death of modern times.

"An opinion emanating from such a respectable source, possibly concerning the welfare of humanity, however peculiar or improbable it may appear at first notice, merits careful consideration, and we, therefore, submit it for scientific investigation. In doing so, we regret that we cannot command many of the plausible arguments urged by its author—such reasons as we remember we present, and to him, or others, leave the task of a complete exposition, which an awakened interest may demand.

"The veriest tyro in chemistry knows that soda, among its other important qualities, is esteemed in Art and Medicine as a *powerful alkali*. In combination with certain oils, it forms the finest toilet soaps of commerce.

"Our authority holds that by a similar *modus operandi* it acts upon the tissues of the system, impeding or preventing their necessary assimilation, development, and reproduction. The perceptible evidence of the effects of soda, he defines, being a gradual decrease of adipose matter, or a deleterious transformation of that substance; a sallow, sickly appearance of the epidermis, and a universal torpidity of the animal organism, resulting in various ailments from their functional derangement. Dr. R— was recently interrogated by the distinguished Harvey Black, M.D., Ex-President of the Virginia Medical Association, and formerly chief surgeon of the famous 'Stone-wall' corps in the U. S. A., concerning the probable cause, or causes, of a certain new disease that is confounding the combined skill of the medical fraternity in this country. [The most noticeable features of this disease is continued costiveness, and an obstinate resistance to the most powerful cathartic. Death ensues in about a week.] Without hesitation, Dr. R— responded, '*I believe that in nine-tenths of the cases soda is the cause. Its baneful influence upon the membranes of the intestines destroys the power of peristaltic or vermicular motion, and, consequently, cathartics fail to excite evacuation.*' Dr. Black considered the idea a very philosophical one, and seemed surprised not to have heard it advanced before. We are informed that he was requested to lay it before the Virginia Medical Association at the next meeting of that honorable body.

"Dr. R— states that in the course of his long practice, he has noticed an unexceptional proneness to imperforation of the bowels in certain fevers, among patients who were habitual users of soda, while he never had any cause to anticipate such a disaster with those who never, or seldom, used it. Dyspepsia, and other affections even of chronic standing, he thinks he has traced to this primary cause, and relieved by prohibiting further use of the poison, sometimes without other prescription.

The diminution of that manly stature, blooming complexion, and robustness of form, which characterized our ancestors, and which, as a remarkable coincidence at least, has been gradually, but perceptibly, deteriorating since the introduction of soda into general use, he attributes very greatly to the injurious effects of that article.

"When we reflect that soda is so universally and extravagantly used in the preparation, not only of bread, but of meats, vegetables, etc., we will see the importance of investigating this matter.

"Should futurity demonstrate the correctness of the 'new departure,' as we think it will, let every newspaper in Christendom cry out against the popular evil; let '*Science vs. Soda!*' ring out from every rostrum, and let female physicians turn their crusade against soda, as well as against King Alcohol, to fight the serpent in their dough-trays. Respectfully,
HANS RUBEL, JR."

TRAINING CHILDREN.—"ED. SCIENCE OF HEALTH,

—I have read carefully and very profitably, every number of THE SCIENCE OF HEALTH which has been published, from the beginning, and have felt greatly pleased with the steady improvement which has been made in your columns from month to month. We like it because it is practical, as well as right. Its influence is being felt by all its readers; and, while it may not have many subscribers in this town, it has many readers, for each number is read by all our friends, and the influence of the drug-doctors is growing less. We believe they will yet become more Hygienic. In fact, the doctors must take this ground when the people demand it of them. Educate the people to require advice, not something to take, and the doctors will yield.

"While you have covered so many different grounds and conditions in THE SCIENCE OF HEALTH, there is one thing which we have not seen discussed, that is, the care and training of precocious children. Will not some of your experienced contributors inform us on this point—What we shall do with precocious children, etc., those who are two years old, or those who are fifteen years old? A series of articles should be written on this subject. I hope some one may be induced to give it attention, and with the best of wishes for THE SCIENCE OF HEALTH, I am, yours, truly,
ANXIOUS MOTHER."

POISONS.—A correspondent supposes, as follows: "Suppose I became very foolish, and suppose I went about administering all sorts of poisons to the people, now don't you think I would kill a few and make many invalids for life?"

"Now, suppose again, that instead of being foolish, (as my dear Allopathic friends say I am), I am a rich man's son, that can put on a few airs and hold my head very high. Then let us suppose that I go to a great medical school, come home with more airs, a higher head, a diploma, and an

M.D. fastened on behind. Now, we will suppose that I look very knowing and dignified, and go about giving *poisons* to the people, is it likely that the result would be different? Can it be possible that poisons secretly administered by an enemy, or taken by mistake, will kill or injure, while the same poisons given by a friendly doctor will cure or benefit any one? Now, if it is true that there is reason in all things, is it not time for a little more reasoning in regard to poisons? Will the people continue to go it blind? Is it not time for people who pretend to be sensible to act so as to prove it? Yours for the truth, E. J. C."

WICKED QUACKS.—A young correspondent (A.), writing from Morrisville, Ill., cuts up the quacks in verse, concluding thus:

"In Nature's own remedy
Of laugh and grow fat,
They are sure not to mention,
They have any of that,
"For its cost is so little,
It comes without buying,
It is pleasant to take,
And cures without lying.
"Then live true to Nature—
Both body and soul,
And keep the mind bright,
By the care of the whole."

WILL DO MUCH GOOD.—A. G. says: "Having lately come into possession of some of the works published by you, including copies of **THE SCIENCE OF HEALTH** and **PHRENOLOGICAL JOURNAL**, I wish to express that I am very much gratified by the valuable information they contain, and the high moral sentiment by which they are pervaded. I think such books, if widely disseminated, are highly calculated to do much good to individuals, communities, and nations. The moral standard of this country has great need of being raised, and I think your publications are a step in that direction. They are certainly a great contrast to the low literature which is circulated by some of the publishing houses of New York.

"But my principal intention in writing this note, is to solicit an agency for the sale of your books; they are to my liking, and I would have pleasure in recommending them to the public."

A WILLING WORKER.—Mrs. M. J. M. writes: "I hereby renew my subscription to **THE SCIENCE OF HEALTH**, also that of my pastor's wife, and send you one new subscriber. I wish I had time to show the people the merits of **THE SCIENCE OF HEALTH** and **THE PHRENOLOGICAL JOURNAL**, for I would like to have everybody read and practice their teachings; besides, I would like to work for your premiums. I cannot begin to tell you how much we think of the Bickford Knitting Machine you sent last fall. It is even a greater blessing in our family than the Clothes

Wringer which we received from you some two years ago. Please place these names to my credit, as I hope to make additions to the list soon."

The Library.

THE SCIENCE AND PRACTICE OF MEDICINE IN RELATION TO MIND. The Pathology of Nerve Centres and the Jurisprudence of Insanity: being a Course of Lectures delivered in Guy's Hospital. By J. Thompson Dickson, M. A., Lecturer on Mental Diseases at Guy's Hospital. 1 vol, 8vo. Illustrated with Photographs. Price \$3.50.

Go on with your discussions, gentlemen. But until you learn something of the brain and its functions, you will know very little about insanity; or how to treat diseases of the mind.

ELEMENTS OF CHEMISTRY, THEORETICAL AND PRACTICAL. By William Allen Miller, M.D., LL.D., etc. Part 1. Chemical Physics. Corrected from the 4th London edition. Illustrated. 8vo, pp. 536. \$4.

A capital work, and must find acceptance among scientific readers.

EPIDEMIC DELUSIONS. A Lecture, By Frederick R. Marvin, M.D., Professor of Psychological Medicine and Medical Jurisprudence in the New York Free Medical College for Women. Read before the Liberal Club, May 9th, 1873. 1 vol. 12mo, pp. 33. Muslin, price 50 cents. New York: A. K. Butts & Co. The author says: "It is to the young and growing Rationalism of this age that I look for the final abolition of both Spiritualism and Materialism," etc. We doubt if he lives long enough to see that for which he is looking.

OUR CURRENCY: What It Is, And What It Should Be. By John G. Drew. A new and revised edition, just published, and for sale at this office. Price, 15 cents.

Would the reader understand the currency question? What is meant by the terms, "Specie Bases," "Inflation," and all other terms used by bankers and financiers? He may find it in this clear, terse, and comprehensive statement.

THE London "New Era" is the organ of the British Medical Reform Association, edited by George Sexton, M.D., LL.D., etc., and published monthly, by J. Burns, 15 Southampton Row, Bloomsbury Square, W. C. In the New Era, all hygienic questions are candidly discussed, and though less radical than **THE SCIENCE OF HEALTH**, liberal and reformatory views as to medicine are disseminated. If the worthy editor, Dr. Sexton, cannot agree with us in all things, it only proves that we cannot agree with him in all things. We hope to bring all good men to our views as expounded in **THE SCIENCE OF HEALTH**.

THE LADY ELGIN continues to flourish, and to advocate the interests of working women at the watch factory in Elgin, Illinois. The monthly is only 50 cents a year, and comes out every quarter in illuminated covers, with pictorial embellishments. Mrs. Bertha H. Ellsworth, one of our valued contributors, edits and manages the Journal with good judgment and excellent taste.

Our Puzzle Column.

AN HISTORICAL ENIGMA.

SIXTY LETTERS.—38, 58, 59, 43, 23, 44, 20, 35, 3, the hero of the charter oak.

When the "gold fever" was at its height, 43, 41, 13, 37, 1, 15, 54, 53, 43, 3, vessels sailed from the ports of New York and New England, for 5, 49, 30, 11, 45, 12, 43, 18, 41, 51.

About 1695, a vessel from 25, 9, 59, 24, 16, 40, 37, 55, 31, 43, touching at Carolina, the captain presented the governor with a bag of 20, 53, 6, 26, seed, with instructions as to the manner of its culture.

23, 43, 34, 56, 13, 3, 10, 35, 17, when informed that this country was too poor to furnish him with a conveyance, provided a vessel for himself and came to our assistance.

Many times within a hundred years the proverb 16, 43, 3, 60, 38, 57, 32, 23, 43, 31, 30, 4, 52, 1, 36, 17, 33, 37, 20, 37, 19, 15, 43, has been used when an unexpected and joyful event is related by those who perchance know not its precise origin.

5, 50, 17, 37, 35, 26, 43, the settlement where met the first assembly convened by governor 38, 3, 54, 13. It sat three days and passed fifty-nine laws.

We expended in the winter of '46-'47, half a million of dollars in fitting out and sending a 6, 7, 14, 23, 53, 6, 37, 50, 11, 38, to the relief of famishing Ireland, and in 1848, seventy-five millions of dollars to kill and distress the Mexicans.

16, 33, 43, 31, 37, a military commander who discovered a body of ambushed Indians stealing upon the people. He suddenly appeared and took command of the defence. He disappeared as he came, and the people believed that an angel had been sent from Heaven to help them.

Andros attempting to seize part of Connecticut, a few troops were sent against him under captain 43, 7, 30, 39, who conducted himself with such spirit, that Andros jocosely declared that his "horns should be tipped with gold."

The whole is a gallant deed of the old French War.
ZIG ZAG.

A METAGRAM.

(Change the first letter.)

A nymph of the mountain,
But not of the fountain.

That which we feel when we do fear
Evil to self or friends most dear.

Then Ellen takes her walks abroad,
Her feet do this along the road.

This is neither cake nor dough,
But light and square when moulded so.

CRUSON.

TRANSPOSITIONS.

Transpose by changing the first letter an animal into a fruit; a fruit into a coin; a coin into a movable lodging place; a lodging place into an animal.

BETH.

AN HOUR GLASS PUZZLE.

To collect.

A kind of poem.

A vowel.

The ocean.

To entertain.

The first and fifth lines are words containing five letters. The second and fourth words of three letters. The middle perpendicular is a word meaning farewell.

ISAHEL.

ANSWERS TO PUZZLES IN APRIL NO.

Shakespearean Enigma.—"Throw physic to the dogs, I'll none of it." Macbeth.

ELLA A. WELLS, ZIG ZAG, ELLEN BROWN, WALTER CHASE, MARY TRUE, FANNY MAC, JOHN ROBINSON, ROBERT CHASE.

A Bouquet.—Rose, Hawthorn, Dandyion, Box, Bachelors' Button, Broom, Elder, Thyme.

ELLA A. WELLS, ELLEN BROWN, WALTER CHASE, MARY TRUE, ROBERT CHASE.

Word Puzzle.—Alligator.

ELLA A. WELLS, ZIG ZAG, ELLEN BROWN, MARY TRUE, FANNY MAC.

Spelling Class.—M on Day. Colt. Tues Day. Dr in king.

ELLA A. WELLS, ZIG ZAG, ANNIE MOORE, JOHN ROBINSON, ROBERT CHASE.

Hygienic Seasoning.

LATEST FASHIONS.—The striking features of the prevailing fashions are—Compression of the heart, lungs and liver; compression of the feet and tipping of the heels; dyed, burned and crimped hair; freckles rasers, balms, rouge, eye-brow dark, lip-carminator and nail-pink; earrings; belladonna to brighten the eye, and arsenic, slate-pencils and pie to whiten the face; a hump on the back—has totally disappeared, and that part is now flat; fans like daggers, umbrellas like shillalaha, and knapsacks laboriously buckled around the wasted place called the waist; hair clipped on the forehead; floating hair; small head, with much on it, but nothing in it. Gentlemen will receive attention in our next.

A DANBURY young man who left on a far Western expedition was bidding his friends good-bye at the depot, when a young girl cried out, "Bring me the scalp of a Modoc, won't you?" The young man, feeling a little hurt at her indifference to his departure and the dangers he was about to encounter, sadly replied, "No, Emma; you should not look for more hair until you have paid for that you now wear." The remark appeared to subdue her.

A YOUNG man who was attending a night writing school was smitten by the charms of a lady present, and at the close of the school, pressed forward and asked if he might escort her home. "Yes," said she, "if you will carry my little boy."

WHEN Arthur was a very small boy, his mother reprimanded him one day for some misdemeanor. Not knowing it, his father began to talk to him on the same subject. Looking up in his face, Arthur said, solemnly, "Mother has 'tended to me."

"Did you ever go to a military ball?" asked a lisping maid of an old veteran. "No, my dear," growled the old soldier; "in those days I once had a military ball come to me. And what do you think it did? It took my leg off."

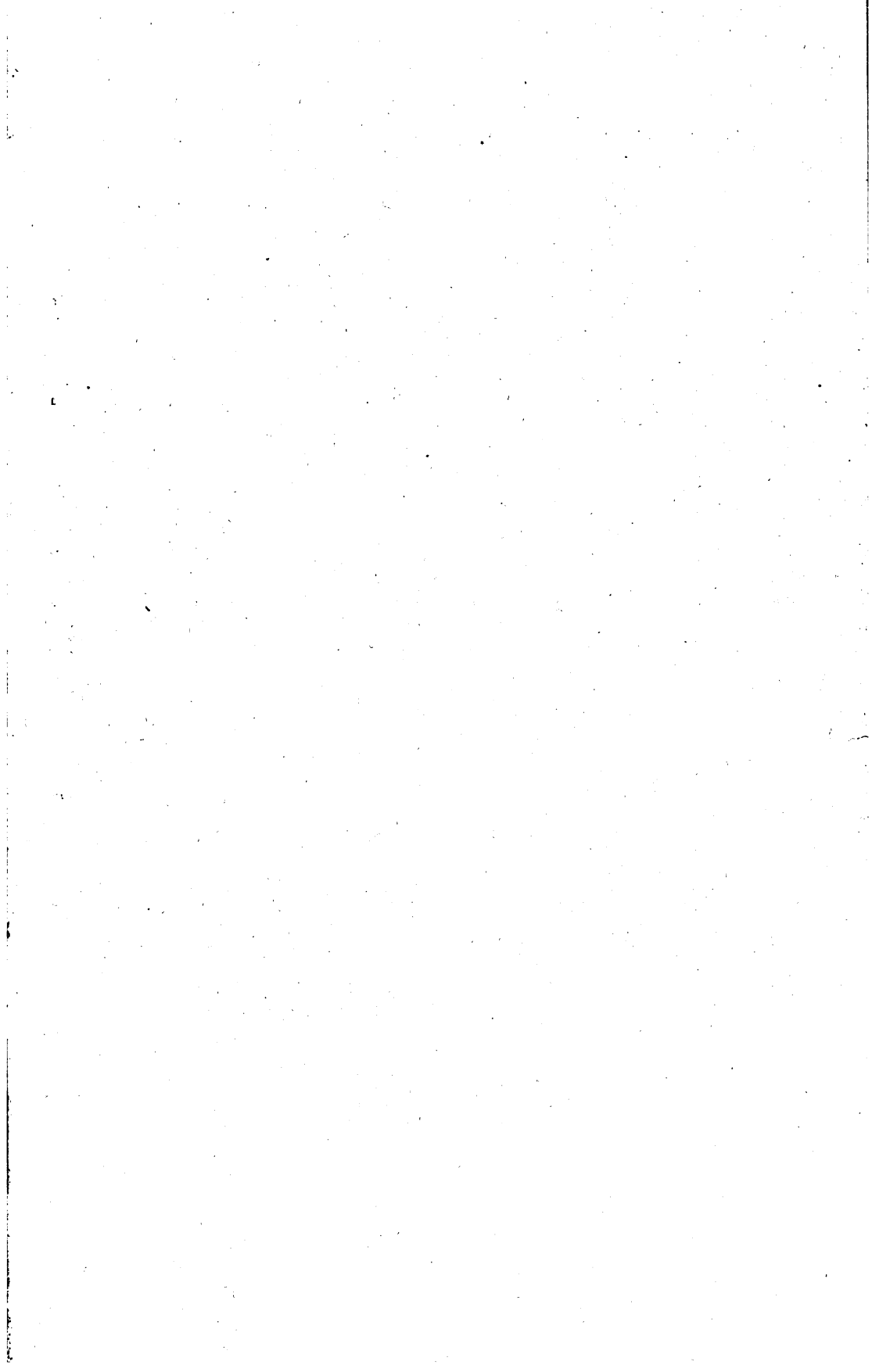
A REMARKABLY dirty man stepped in front of a small boy sitting on a fence, expecting to have some fun by chaffing him. He said: "How much do you weigh?" The answer was, "Well, about as much as you would if you were washed."

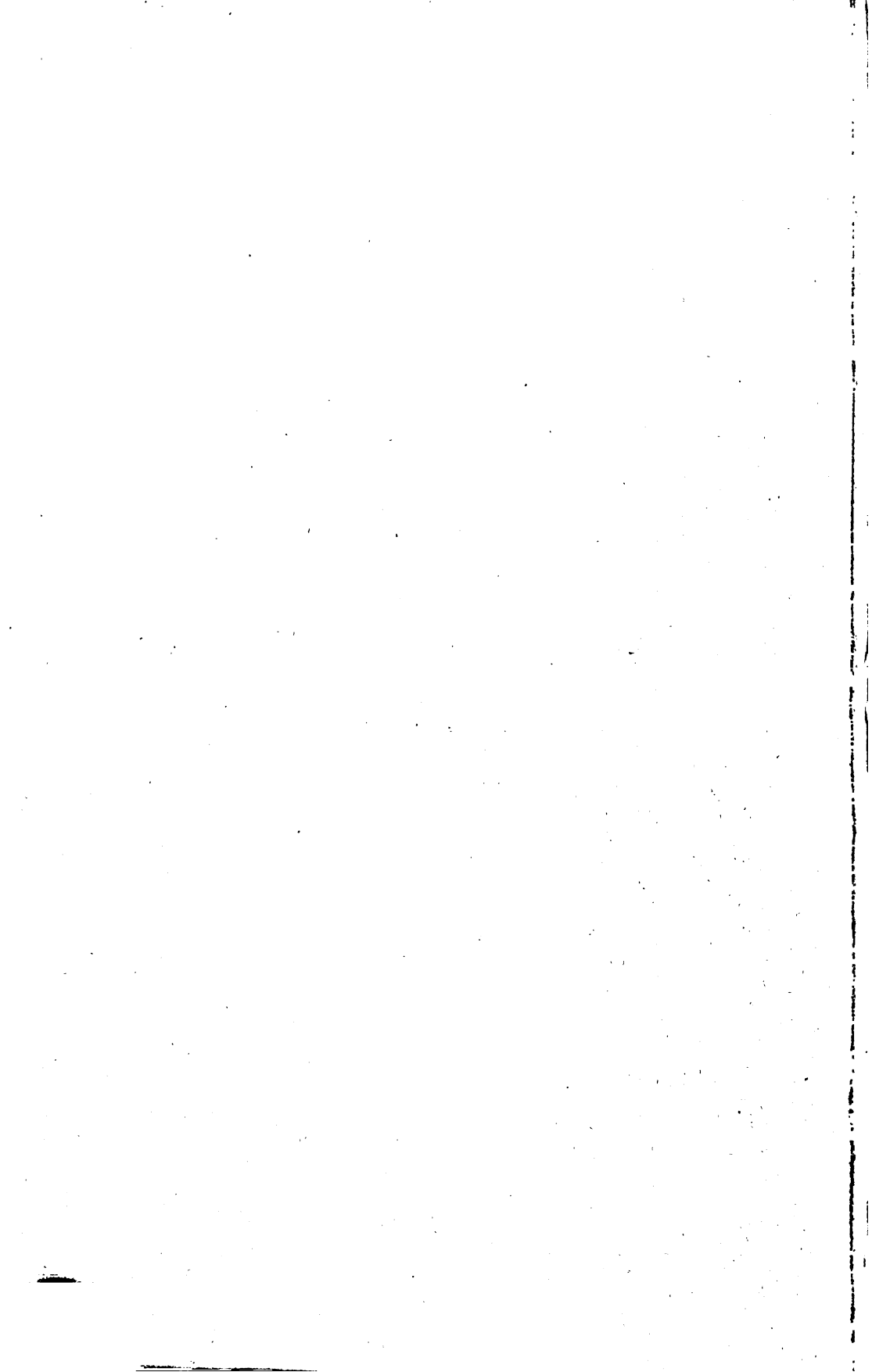
REV. GENT: "But you really can have no serious reason to wish to be parted from your wife." Rustic: "Well, no sir. I like my wife well enough, but you see she don't please mother."

A SHORT-SIGHTED gentleman in Collina saw a neighbor's black cat sleeping on his woodshed roof. He seized a shotgun, took aim—and blew the North-American stuffing out of his wife's best black hair, placed there to dry in the sun. He listened to some funny conversation for a while!

A FRENCH gentleman, learning English to some purpose, replied thus to the salutations: "How do you do, monsieur?" "Do vat?" "How do you find yourself?" "I never loses myself." "How do you feel?" "Smooth. You just feel me."

A GENTLEMAN, at a musical party, asked a friend, in a whisper, "How shall I stir the fire without interrupting the music?" "Between the bars," replied the friend.





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